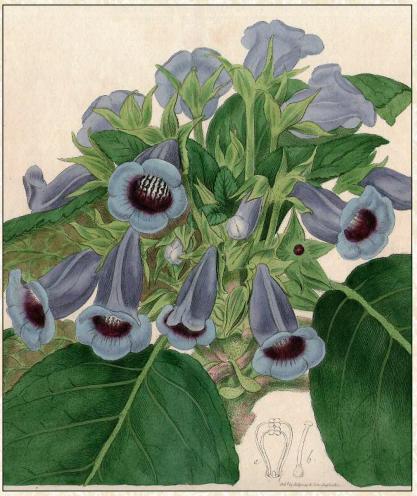
GESNERIADS

The Journal for Gesneriad Growers

Vol. 61, No. 3

Third Quarter 2011



Sinningia speciosa

The Gesneriad Society, Inc.

A non-profit membership corporation chartered by the State of Missouri

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"Gleanings" — a free monthly newsletter from The Gesneriad Society (Mel Grice, editor). To subscribe, go to <www.gesneriadsociety.org> home page and click on "subscribe to information" under "Gleanings".

Newsletter Editors — NewsViews, free to editors; \$6 subscription to others. Contact Leslie Milde, 373 Main St., P.O. Box 14, Fremont, NH 03044 <meribush@aol.com>

Gesneriphiles Internet Discussion Group — Visit the website for instructions about joining the list: http://lists.ibiblio.org/mailman/listinfo/gesneriphiles

British Streptocarpus Society — <www.streptocarpussociety.org.uk> To join from the USA/Canada send \$12 check payable to Dale Martens, 1247 Island View Dr., Sherrard, Illinois 61281. To join from any other country, send £8 or 12€ to Peter Pinches, 72 Coopers Rd., Handsworth, Birmingham, England B20 2JX.

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(formerly the American Gloxinia and Gesneriad Society, Inc.)

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OBJECTS OF THE SOCIETY — The objects of The Gesneriad Society are to afford a convenient and beneficial association of persons interested in gesneriads, to stimulate a widespread interest in, gather and publish reliable information about the identification, correct nomenclature, culture and propagation of gesneriads; and to encourage the origination and introduction of new cultivars.

GESNERIAD REGISTRATION — The Gesneriad Society, Inc. is the International Registration Authority for the names and cultivars of gesneriads excepting the genus Saintpaulia. Any person desiring to register a cultivar should contact Judy Becker, 432 Undermountain Road, Salisbury, CT 06068 <a href="https://doi.org/bub/https://do

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COVER

Sinningia speciosa – one of the first illustrations as Gloxinia speciosa (published in 1817 in The Botanical Register)

President's Message

Our Society is 60 years old this year. At the start of our seventh decade we continue to thrive because we serve a useful and important purpose: to bring together people who share enthusiasm for gesneriads.

Although the Society's mission remains the same, our organization has certainly changed with the times. Imagine yourself back in 1951. Many of the gesneriads we now grow had not yet been discovered or bred in cultivation. Tropical habitats were not yet threatened. The existence of DNA was known, but its double helix structure had not yet been determined, and it would be years before the genetic code carried by DNA was understood. There was no Internet: no email, no websites, no Facebook. There was no such thing as a home computer, an e-reader, or an electronic publication.

What was there in 1951? There were people who were interested in growing, showing, breeding, and studying Florist Gloxinias and other gesneriads. There was a journal published for the Society membership. There were local chapters. There were shows. There was a seed fund. There were botanists who studied and collected gesneriads in the wild. None of this has changed, but now we have new tools, new media, and new challenges.

Nowadays, gesneriad enthusiasts use the Internet to easily communicate with like-minded folks all over the world. Electronic communication allows our Society to reach more gesneriad enthusiasts, many of whom are prospective members. Our website, our Facebook page, and our monthly e-zine *Gleanings* are available to anyone interested in gesneriads, furthering our mission to spread the word about our plant family. Our journal is now published electronically as well as on paper. Many of us, myself included, have become "Green Members," foregoing the print version of our journal in order to save a few trees and reduce our impact on the environment.

Modern technology has also revolutionized our understanding of gesneriads, as botanists can analyze DNA to give clues to the genetic relationships among gesneriad species, sometimes with unexpected results. Our Society can help disseminate this information and educate gesneriad enthusiasts about name changes.

But human "progress" also has a negative effect on our plant family, as gesneriad habitats are lost, victims to human encroachment. Our Society is making an effort to help conserve and preserve in cultivation species whose wild habitat is being lost, perhaps averting complete extinction.

Speaking of extinction, my second term as President has ended and I will return to being "only" Publications Chair. It has been an honor to serve as President of an organization that has been such an important part of my life for so many years. May our Society continue to thrive – and to change with the times – for decades to come.

Peter

From the Society's Founder

Elvin McDonald <emcdonald@botanicalcenter.com> Des Moines, Iowa, USA

At age 74, people are not surprised when I tell them my children Mark, Steven, and Jeannene will be 51, 50, and 48 this year, but disbelieve when I say the fourth will be 60. The "fourth" is, of course, what has become The Gesneriad Society. I was actually only 13 when I sent letters to *Flower Grower* and *Popular Gardening* magazines, asking those interested in forming a gloxinia society to write me. Within days after publication I received more than 300 letters in our Rural Free Delivery mailbox in front of my parents' farm in the Oklahoma panhandle. Our party line was so unreliable that I had to be driven 16 miles into town to use a friend's telephone in order to make a long-distance call.

The Florist Gloxinia hybrids created by Albert Buell were my inspiration for starting a society. I had been a member of the American Begonia Society and a reader of *The Begonian* since I was about age 10, and that organization was my model for naming the journal The GLOXINIAN and for having a seed fund.

Earlier this year, Paul Susi sent out images of Charles Lawn's hybrids in "GloxNews" and, of course, they set my heart aflutter. Times are different: Unlike the old days of mail and unreliable telephone service, Paul connected me with Dale Martens within minutes by email ... and within days I had a packet of Lawn's hybrid seeds from her. They arrived on my birthday and I handed them off to the best grower I know, Gary Heggen of Conrad, Iowa. Gary coaches our Team Orchid volunteers who, under his able direction, curate the orchid collection at the Des Moines Botanical Center where I am Friends Director. Gary is also a member of the Evening African Violet Society of Des Moines, which is now working to build a gesneriad collection at the Botanical Center.

Yes, I admit to pride at having started what has become The Gesneriad Society, but I am proudest of what all of you do to make it one of the best in terms of solid science and research, cyberspace presence, and outreach to all plant people. Congratulations. Here's to another 60 years!

Elvin McDonald





Sinningia speciosa (Buell "Gloxinia") hybrid (1952 cover image from The GLOXINIAN)

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GESNERIADS 61(3)

Once Upon a Gloxinia ...

Suzie Larouche, Historian <suzielaro@gmail.com>

Sixty years ago, a boy fell in love with a Gloxinia. He loved it so much that he started a group, complete with a small journal, that he called the American Gloxinia Society. The Society lived on, thrived, acquired more members, studied the Gloxinia and its relatives, gesneriads. After a while, the name of the society changed to the American Gloxinia and Gesneriad Society. The journal, The Gloxinian, grew thicker and glossier. More study and research were conducted on the family, more members and chapters came in, and the name was changed again – this time to The Gesneriad Society.

Nowadays, a boy who falls in love with the same plant would have to call it *Sinningia speciosa*. To be honest, the American Sinningia Speciosa Society does not have the same ring. So in order to talk "Gloxinia," the boy would have to talk about *Gloxinia perennis*, still a gesneriad, but a totally different plant. Unless, of course, he went for the common name of the spectacular Sinningia and decided to found The American Florist Gloxinia Society. Still not right.

This may all sound crazy, but it illustrates how far the Society has come in the last 60 years. All the developments in gesneriad science have stemmed from its very existence. In addition to enthusiastic amateurs, the Society has always attracted serious researchers and encouraged delving into all aspects of the plant family. All this came about because *Sinningia speciosa* attracted the attention of a boy in small town Oklahoma. For years, it was front and center in the activities of the Society. It lent itself to hybridization and Albert Buell, Mr. Gloxinia himself, dedicated his life to it.

Many of today's hybridizers work on smaller varieties of Sinningias as well as with numerous other gesneriads. It has been a 60-year journey involving enlightened enthusiasts as well as botanists and taxonomists. Scientists now explore remote areas around the world to discover new species or save others from destruction. Habitats and genetics are studied and diversity is being preserved. Still, few outside our Society know what a gesneriad is. But show them a Florist Gloxinia and you will usually find that they have either grown it or seen it at the local garden center. After all, it was known already 60 years ago but, most importantly, it is still a beautiful plant whatever the color of its flowers or the size of its leaves.

On this 60th anniversary of what is now The Gesneriad Society, old issues of The Gloxinian may read like so much nostalgia, but they recount a journey that is ongoing. More doctoral theses will be written, more taxonomic changes will be made, and still people will go on growing Florist Gloxinias in their homes. Thus things are as they should be.

Color Photo Sponsorship

Color images on pages 17-20 sponsored by Jeanne Katzenstein in lieu of editorial expenses

Carolyn Ripps <rippscs@aol.com> Gussie Farrice <f.farrice@verizon.net>

What a dreadful winter we had in the Northeast. The cold weather was endless and the snow abundant. April Fools' Day greeted us with yet another snowstorm, underscoring the capriciousness of the weather. The Sinningias in bloom on my windowsill and light stands helped quite a bit to dispel the gloom.

The Seed Fund Chairpersons had the opportunity to judge gesneriads at the Philadelphia Flower Show in March. Blooming plants of *Sinningia leucotricha* were common and entered in numerous classes. Each year, more gesneriads are entered in the Horticultural classes and the Liberty Bell Chapter members contribute many fine entries.

As I write this in April, I'm inspired by the bright flowers of *Sinningia leucotricha*, *S. cardinalis*, *S. canescens*, *S. lineata*, and *S. macropoda*, as well as blossoms of several intergeneric hybrids and mini Sinningias. The Streptocarpus hybrids and the occasional Columnea are also beginning to flower, announcing the arrival of spring.

We're going on a trip to southern Ecuador with John L. Clark at the end of May. Ecuador is especially rich in gesneriads and we'll undoubtedly see plants that are unfamiliar and perhaps even new species that have never been described.

We are also looking forward to the 2011 Gesneriad Society Convention in Philadelphia. The plant sales will tempt us to try new things and replace old favorites that have been lost. Once again we will have seeds for sale and we hope you will take advantage of the opportunity to expand your collections.

Orders for species seed have increased considerably, so turnaround time for orders may be longer after the First Quarter and Third Quarter lists are published. You can help us provide faster service by always listing alternate choices and enclosing a self-addressed envelope with every order.

Donations of fresh seed for the Seed Fund are always needed and will be especially welcome this year as donations have been fewer than usual. Please send your donations to Karyn Cichocki and not to the Seed Fund Chairpersons. Donations from the following are gratefully acknowledged: Marilyn Allen, Marlene Beam, Karyn Cichocki, Lucia Cortopassi, Kyoko Imai, Frank Kahn, Jeanne Katzenstein, Alan LaVergne, Leong Tuck Lock, Charlene Marietti, Maureen Mark, Dale Martens, Mauro Peixoto, Carolyn Ripps, and Marie Selby Botanical Gardens.

Mail orders for species seed to: Carolyn Ripps, 21 Sprain Road, Hartsdale, NY 10530

Seed Packets — \$2 each

Please • To pay by credit card, send your credit card number, expiration date, and signature, and indicate if the card is Mastercard or Visa (\$6 minimum)

Make checks payable to the The Gesneriad Society in U.S. funds

• Provide a self-addressed, stamped envelope (non-U.S. orders will have the postage added to their credit card bill)

List alternate choices

• Include your membership number (first number on your mailing label)

Note

• There is a limit of one seed packet of a single variety per order

• There is a limit of 25 seed packets per order

There is a household limit of 50 seed packets per calendar year

Seed Fund - Species

Achimenes (D)

admirabilis (B,F,L)

- · candida cettoana (B)
- · dulcis erecta (B) erecta 'Tiny Red' (F,L)

grandiflora (B,F,LM)

 grandiflora 'Robert Dressler' (B) longiflora (B) longiflora alba (B)

mexicana (B) · misera

Aeschynanthus (B)

- · angustifolius batakiorum
- · boschianus evrardii

fecundus SEL1974-2907-A fulgens USBRG82-271

- garrettii (B) gracilis 'Pagoda Roof'
- guttatus

horsfieldii

lobbianus 'Radicans'

longicalyx longiflorus

micranthus SEL 1974-0260 parviflorus SEL 1974-2701

parvifolius

sp. Cameron Highlands

 sp. Mt. Batupasak HW12587 sp. (red) / Philippines

sp. "Thai Yellow"

Agalmyla

• parasitica HW12714/Mt. Salak (B)

Alloplectus

· sp. DN96-94243

Alsobia (B)

dianthiflora

punctata

Amalophyllon (D,H,L)

 clarkii USBRG 96-336 divaricatum (Phinaea divaricata)

rupestre RM2006-1 /Belize

Anodiscus (see Gloxinia)

Besleria

comosa JLC9931 (T) laxiflora GRF9675 (M) melancholica (MT)

solanoides GRE10975 (G.T) cf. divaricata JLC5629

Roea

hemslevana

hvgroscopica

Briggsia (A,R)

- aurantiaca muscicola
- species #2

Chaûtemsia

· calcicola

Chirita

caliginosa (LM)

eburnea (blue) (F,R) flavimaculata USBRG94-085 (R)

gemella

hamosa (F,M)

· heterotricha

involucrata (F,L)

• involucrata (dark blue) lavandulacea (LM)

• liboensis (white veined) (H,L)

longgangensis

• *lutea* (formerly *C. eburnea* yellow) (F,R)

micromusa (F,L)

pumila (F,L)

pumila USBRG2000-18 (F,LM)

sericea (L.R)

 spadiciformis (L,R) tamiana USBRG98-080 (F,R,P)

viola

species (Thailand)

· species (blue) from Phuket

Chrysothemis (F,LM) friedrichsthaliana

pulchella

 pulchella (Ecuador) pulchella (formerly villosa)

Codonanthe (B)

calcarata 'Puyo'

 caribea crassifolia crassifolia 'Cranberry' devosiana (paula) devosiana SEL 1997-0120A

• erubescens

 gibbosa (was sp. 'Santa Teresa') gracilis

serrulata

uleana

• venosa

Columnea (B)

 arguta brenneri JLC9833 byrsina (Pentadenia) (L) calotricha SEL 2010-0138 citriflora (Trichantha citrina) crassicaulis (Pentadenia)

• dodsonii

 dressleri eburnea (Dalbergaria) fawcettii

glicensteinii • gloriosa hirta

• inaequilatera (Dalbergaria) JLC6072

• lehmannii GRE11180

· linearis

· linearis 'Purple Robe'

· microphylla

 oerstediana orientandina (Pentadenia) (LM) ornata (Dalbergaria) GRF2665 oxyphylla polyantha (Dalbergaria)
 proctori

purpusii

raymondii

rubriacuta GRE11195

 sanguinea (Dalbergaria)
 sanguinea (Dalbergaria) 'Orange King' GRF9492

sanguinea (Dalbergaria) (yellow)

scandens var. fendleri • scandens var. tulae

spathulata (Pentadenia) GRF9503 (LM)

spathulata (Pentadenia microsepala) W1837

spathulata (Pentadenia zapotalana) strigosa (Pentadenia) GRF95154 sulfurea

tandapiana

Corytoplectus

cutucuensis (L) speciosus JLC9969

speciosus v. orbicularis JLC11721

Crantzia tigrina

Cyrtandra

cupulata (G,H,MT) subulibractea JRC788 (T)

• sp. (white) /Java (T)

Dalbergaria (see Columnea)

Diastema (D,F,P)

affine JLC9964 latiflorum GRF 9669A (F,H,L) racemiferum JLC9824

vexans

Didymocarpus• cordatus (G,T)

coraatus (G,1sulfureus

Drymonia

affinis GRF98109 coccinea GRF9873 coccinea JLC9980 (T)

coccinea var. fusco-maculatus conchocalyx 'Silver Lance' (T)

• coriacea

doratostyla GRF9674 (B) ecuadorensis JLC 9769 hoppii JLC9863 mortoniana (L) pendula SEL 1998-0223

pulchra GRF98113 rhodoloma ABG90-0528

serrulata (B) serrulata GRF9752

strigosa (B)

• cf. ecuadorensis JLC6185 sp. (umecta ined.) (B)

Episcia (H,L,B,F)

xanthacupreata

Epithema

sp. / N. Perak (M) sp. (blue) /N. Perak (M)

Fieldia

australis

Gesneria (H,F)

acaulis (M) christii (LM) citrina

· cuneifolia (L)

• cuneifolia 'Quebradillas' (L) cuneifolia 'Tom Talpey' (L) humilis

pedunculosa USBRG97-102 (S,T)

• rupincola ventricosa (M)

Glossoloma (Alloplectus)

bolivianum USBRG95-140 (M) ichthyoderma JLC9836 (T) scandens GRE11235 cf. panamense GRE11118

Gloxinella (Gloxinia) (D)	 plumerioides (Cabral)
lindeniana (F,L)	tenuiflora
Gloxinia (D)	Paradrymonia
erinoides 'Red Satin'	• ciliosa
perennis (LM)	decurrens (L)
perennis 'Insignis' (L)	• sp. JLC5731 (F,P)
xanthophylla (Anodiscus) (M)	Pentadenia (see Columnea)
Gloxiniopsis (Gloxinia) (D)	Phinaea (D,F,P)
racemosa (L)	albolineata
Haberlea (A,R)	multiflora 'Tracery'
rhodopensis	 pulchella JLC10538 (F,H,L)
Hemiboea (D)	Ramonda (A,R)
• strigosa	• myconi
subcapitata (L)	myconi —
Henckelia	• blue
• albomarginata (H)	white
• hispida (H)	lavender
• malayana (H,M)	pink
Heppiella (D)	• pink/white
ulmifolia GRF98172	• serbica (purple)
Kohleria (D)	Rhytidophyllum (G,H,S,T)
allenii (Ť)	auriculatum
aff. amabilis 'Panama Pink'	tomentosum
hirsuta	villosulum
peruviana	Ridleyandra
Monophyllaea	• morganii
hirticalyx (L,U)	• quercifolia
horsfieldii (Ú)	Rufodorsia (F,LM)
Moussonia	• minor
 elegans 	Saintpaulia (F,R)
Napeanthus	3. shumensis
• costaricensis	• 5a. cl. grandifolia No. 299
Nautilocalyx	• 5b. cl. <i>grotei</i> Protzen
adenosiphon	5b. cl. <i>grotei</i> Silvert (F,L,R)
• mellitifolius	• 5c2. cl. <i>diplotricha</i> Punter No. 7
Nematanthus	• 5f. cl. orbicularis
albus (sp. "Santa Teresa") (B)	• 6. brevipilosa
australis (B)	• 8. <i>rupicola</i> cl. Cha Simba
 brasiliensis 	Sarmienta
corticola	• scandens (B)
fissus GRF9938	Seemannia (Gloxinia) (D)
• fluminensis	gymnostoma (LM)
fornix	nematanthodès
• fritschii	 purpurascens / Bolivia
• punctatus MP0052	sylvatica
• sericeus (B)	Sinningia (D)
 strigillosus 'Ibitipoca' (B) 	aggregata (M)
wettsteinii (B)	aggregata 'Pendulina'
Neomortonia	aghensis (T)
 nummularia 	aghensis AC2356
Opithandra	allagophylla (MT)
• primuloides	allagophylla GRF9922
Ornithoboea	allagophylla GRF9929
wildeana (LM)	allagophylla GRF9968
Paraboea	allagophylla (yellow)
• capitata	• amambayensis (L)
• sp. (green leaf)	• araneosa (F,L)
• sp. (silver leaf)	brasiliensis (M)
Paliavana (S,T)	brasiliensis 'Verde'
prasinata	brasiliensis AC1314
prasinata GRF732	bulbosa (T)

bullata (was sp. "Florianopolis") muscicola (light) [was sp. "Rio das Pedras" (light)] calcaria MP891 (F,L) nivalis AC1460 (L) canescens (D,LM) carangolensis (M) nordestina cardinalis (F,LM) piresiana (L) polyantha (formerly sp. "Waechter") cardinalis (compact) (F,LM) cardinalis (dark calyx) (LM) cardinalis (orange) pusilla (F,P) cardinalis peloric mix pusilla (Itaoca) (F,P) cardinalis (pink) pusilla 'White Sprite' (F,P) cardinalis 'Innocent' reitzii (M) cardinalis 'Skydiver' (LM) reitzii 'New Zealand' richii cochlearis concinna (F,H,L) · richii 'Robson Lopes' conspicua (F,L) sceptrum (T) sceptrum AC2406 (T) conspicua GRF 9942 sellovii (MT) cooperi (LM) cooperi AC1522 (M) sellovii GRF9919 sellovii 'Bolivia' USBRG96-003 curtiflora (T) · sellovii 'Purple Rain' curtiflora GRF9927 defoliata speciosa 'Buzios' douglasii GRF91188 (LM) speciosa 'Carangola' speciosa 'Domingos Martins' douglasii GRF9936 (LM) douglasii 'Red' speciosa 'Regina' elatior AC1409 (M) speciosa 'Sao Conrado' speciosa AC1503 elatior GRF9963 sulcata (LM) eumorpha /Saltao (L) eumorpha (lavender) (F,L) tubiflora (S,MT) eumorpha (pink) tuberosa eumorpha (white) warmingii (T) gerdtiana (was sp. "Gertiana") warmingii GRF9921 sp. aff. aggregata (yellow) (M) gigantifolia glazioviana (L) sp. aff. aggregata / Ilhabella MP631 globulosa (was sp. "Globulosa") sp. aff. reitzii 'Black Hill' (M) sp. aff. reitzii GRF9914 (magenta) guttata (LM) harlevi MP 482 sp. aff. warmingii 'Esmeril' (L) hatschbachii (L) sp. "Bahia" • sp. "Ibitioca" (LM) hatschbachii 'Iporanga' (D,LM) helioana (was sp. "Santa Teresa") sp. "Pancas" hirsuta (L) mixed species iarae (F,L) Smithiantha (D,F,M) incarnata (S,MT) canarina GRF9105 insularis (LM) laui leopoldii (F,L) multiflora leucotricha (F,L) multiflora GRF9121 leucotricha (pink) multiflora GRF9122 leucotricha cv. 'Max Dekking' (M) zebrina GRF9104 leucotricha "English" **Streptocarpus** lineata (LM) buchananii (B) lineata (highly spotted) candidus (F,R) macrophylla compressus macropoda (M) confusus (U) macrostachya (LM) confusus ssp. confusus /Swaziland magnifica GRF91121 (pink) (LM) cooperi (U) magnifica GRF91134 (red) cyanandrus (F,P) • cyaneus (blue) (R) mauroana (D,M) micans MP891 (LM) cyaneus (blue/long corolla) muscicola MP1094 (was sp. "Rio das cyaneus (lilac) Pedras" MP1094) cyaneus ssp. cyaneus albus muscicola (dark) [was sp. "Rio das daviesii (F,U)

Pedras" (dark)]

denticulatus (U)

• dunnii (U) evlesii (U) fanniniae (R) fasciatus (R) fasciatus /Krokodilpoort, E. Transvaal (R) floribundus (R) formosus (R) formosus /E. Cape, Transkei galpinii gardenii (F,L) glandulosissimus goetzei (U) grandis (U) grandis (blue form) grandis ssp. grandis haygarthii (F,U)

 haygarthii JT04-03D/Transkei Coast (F,U)
 haygarthii JT04-051/Inchanga (U)
 haygarthii /Mkambati, Transkei (U)
 holstii (B,L)
 johannis (F,R)

johannis /Komga, E. Cape johannis /Weza, S. Natal (R) sp. aff. johannis (F,R) kentaniensis

- *kentaniensis* (N. Kei River) *kirkii* (F,L)
- kunhardtii
- lilliputana
- meyeri /SE Transvaal (R)
 meyeri /NE Cape Province
 modestus (R)
- modestus /Magwa Falls, Transkei (R) molweniensis muscosus (L) nobilis (M) pallidiflorus (F,LM) parviflorus (R) parviflorus (mauve)
- parviflorus (white) (R) parviflorus (white/mauve)
- parviflorus ssp. parviflorus /Limpopo
 Province

pentherianus (F,L)
polyanthus subsp. comptonii
polyanthus subsp. polyanthus
polyanthus subsp. polyanthus /lg fl
polyanthus subsp. polyanthus /Valley of
1000 Hills, Natal
porphyrostachys (U)
primulifolius (F,R)
primulifolius /Valley of 1000 Hills
prolixus (F,U)
pumilus (F,P)
musillus (F,P)

• pusillus JT04-02C (P)
rexii (white)
rexii (pale blue/long corolla)
rexii (white/blue mix)
rimicola (F,P)
roseoalbus (F,R)
saundersii (U)

sp. nov./ Shiyalongubo Dam thompsonii (B,L)

trabeculatus (U)

vandeleurii (U)
variabilis (F,R)
wendlandii (U)
wilmsii (U)

saxorum (B)

wilmsii /Long Tom Pass (U)

Mixed species

Titanotrichum oldhamii (propagules)

Tremacron

• aurantiacum (R) **Trichantha** (see Columnea)

Vanhouttea (S,T)
• brueggeri

lanata
• pendula

Mixed alpine gesneriads Mixed gesneriad species

 Limited quantities available. Packet may contain small amount of seed

Seed Fund Key

- (A) Alpine or cool greenhouse
 (B) Suitable for hanging basket
 (D) Has dormant period, forming
 - tubers or rhizomes
- (F) Blooms readily in fluorescent light
 (G) Recommended for greenhouses;
 requires space
- (H) Requires humidity and warmth
- (L) Low growing; not more than 12"
- (LM) Low to medium height
- (M) Medium height; 1 to 2 feet
- (MT) Medium to tall
- (P) Petite or miniature; under 6"
- (R) Rosette in form
- (S) Requires sun to bloom
- (T) Tall plants; generally over 3 feet
- (U) Unifoliate or single leaf
- (V) Leaves may be variegated

A History of the Florist Gloxinia in Pictures and Words

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Introduction

I think it is reasonable to assume that any dedicated grower of gesneriads has, at one time or another, grown the plant generally known as the Florist Gloxinia or Brazilian Gloxinia (Sinningia speciosa). Many of us, myself included, began our involvement with the Gesneriaceae when we acquired one of the many cultivars of S. speciosa (or possibly another species of Sinningia). The society that publishes this journal was founded around this species, and its popularity with enthusiasts and the general public endures. As both a plant hobbyist and a plant molecular geneticist, I am fortunate to be able to merge my personal and professional interests in S. speciosa. In a recently published paper, a colleague and I reported nuclear genome sizes for 10 species of Sinningia (Zaitlin & Pierce 2010). This was a first for the neotropical Gesneriaceae, and nearly triples the number of gesneriad species for which genome size estimates are available. A major finding is that genome size can vary about 20 percent in S. speciosa. Such variation may reflect evolutionary trends within the species as intraspecific genome size variation is rare in higher plants. The long-term goal of the research is to isolate genes involved in tuber induction and development.

Despite a cultivation history of nearly 200 years, the origins of the cultivated *Sinningia speciosa* varieties are not well known. Those we grow today have large, erect (peloric) flowers that are often dark purple or red in color, with as many as nine petal lobes, whereas the wild forms have smaller nodding flowers in shades of lavender and purple (rarely white), and always with five petal lobes.

The genetics of flower shape in angiosperms (flowering plants) is of considerable interest to evolutionary biologists because this trait is intimately associated with pollinator preference and therefore reproductive fitness. Wild-type Sinningia speciosa flowers have only one plane of symmetry (they are zygomorphic) while the flowers of peloric "gloxinias" have multiple planes of symmetry (they are actinomorphic). I am very interested in how the peloric forms came about, and what caused the transition from wild-type to peloric flowers. Over the past several years, I have conducted an exhaustive search of the literature in an effort to understand the history and domestication of this interesting and beautiful ornamental. What follows is a comprehensive, but probably incomplete, summary of my findings. My intention was to compile a list of all known color images of S. speciosa from the 19th century; I think I came close, although much of the German literature was not available to me. As The Gesneriad Society celebrates its 60th year, I am honored to contribute an article to this special issue of GESNERIADS.

¹ Note from Peter Shalit: "The genome is the entirety of an organism's hereditary information (genetic code), encoded in DNA. DNA is a molecule made up of a chain of units ("base pairs"), like beads on a string. The base pairs are analogous to the letters that make up words in a written language. The genome includes both the genes and the non-coding portions of the DNA. "Genome size" refers to the total amount of DNA in one complete set of an organism's chromosomes. Different organisms may have very different size genomes, much as the texts of different books each are comprised of different numbers of letters."

The Antique Botanical Literature

To know the Florist Gloxinia, one must be familiar with the 19th century botanical literature. Today, nearly all of these historical documents are accessible to anybody with a computer and an Internet connection. Through Google Books, which has digitized an enormous number of old books, many classic horticultural titles from the libraries of the Arnold Arboretum and Gray Herbarium of Harvard University are now available. Botanicus <www.botanicus.org>, the digital library of the Missouri Botanical Garden, and the Biodiversity Heritage Library <www.biodiversitylibrary.org> are also excellent sources for older botanical publications. Only Google Books is fully searchable by keyword or phrase, but the other two have better image quality.

Scholarly research standards that included editorial peer review for the scientific literature did not exist until the mid-20th century, and many of the early medical and scientific publications were personal undertakings. As a result, the quality of scientific publications varied considerably at a time when both amateur and professional botanists rushed to name and publish the many new species brought back from exotic parts of the world by scientific expeditions. The confusion that often resulted is well illustrated by the taxonomic history of *Sinningia speciosa*. From its first publication in 1817 (as *Gloxinia speciosa*) until the last description in 1917 (as *Gesneria regina* Hort., an invalid name probably based on *Sinningia regina* Sprague, 1904), there are at least 37 discarded names in six genera for this single taxon (Skog and Boggan 2007). And nearly one-third of these rejected species names were published in the 30 years after *Gloxinia speciosa* was transferred to *Sinningia* in 1877 (Hiern 1877).

The Early Years

In considering the history of *Sinningia speciosa*, there are two stories associated with the discovery and domestication of this species that are worth repeating. The first is that it was originally collected in 1815 in Brazil and introduced into cultivation in England, where it was well received. Who actually collected the first plants, and from where, is unknown. Joachim Conrad Loddiges (c. 1738-1826), who owned a large nursery in the village of Hackney, near London, introduced S. speciosa in the first issue of The Botanical Cabinet (Loddiges 1817), published by his son George from 1817 to 1833. Loddiges noticed that the flowers of his new plant were similar to those of Gloxinia maculata (=G. perennis), a rhizomatous species that his nursery offered at that time, and he named it Gloxinia speciosa. It is fortunate that he chose the right botanical family, and his choice of genus (Gloxinia L'Héritier 1789) is understandable because Sinningia did not exist until 1825. G. speciosa became commonly known as the "gloxinia," and we are still stuck with the name today. The Loddiges firm is known to have both worked with and sponsored plant collectors in their quest for tropical orchids, so it is possible that S. speciosa was first collected for them.

The second story focuses on the ancestor of the modern cultivars. John Fyfe, a Scottish gardener, is credited in 1845 with being the first person to raise a "gloxinia" with peloric flowers. Images of this plant were published as *Gloxinia Fyfiana* in British and European periodicals in 1847 and 1848. The parentage of *G. Fyfiana* is obscure, because nothing written by Mr. Fyfe is known from that period. More on this important plant later.



Joachim Conrad Loddiges (portrait by John Renton II (image courtesy of London Borough of Hackney archives)



Gloxinia speciosa illustrated by Loddiges in The Botanical Cabinet (1817)

The early literature highlights how remarkably popular "gloxinias" were in the first half of the 19th century, especially in Great Britain. Plants were widely grown and admired in greenhouses and "stoves" (heated greenhouses), and new varieties and hybrids caused considerable excitement. English travelers were so fond of the plant that they took it with them to far-flung colonial settlements. There is a record of *Gloxinia speciosa* being among the exotic plants grown on the island of Mauritius, where it had been introduced by the governor, Sir Robert Townsend Farquhar, in 1822. We also know that it had reached India (Kolkata) by 1843; Barbados by 1848; the British Virgin Islands by 1851; Madeira and British Guiana by 1855; and Ceylon (Sri Lanka) by 1879. The earliest mention I can find of *G. speciosa* being grown in the United States is in *The American Gardener's Magazine* (vol. I, 1835), where it was seen in the hot-house of the Hon. John Lowell of Roxbury, Massachusetts. However, a cryptic listing in a catalogue from Bartram's Botanical Garden near Philadelphia may push this date back to 1819.

The "gloxinia's" transition from wild Brazilian rock dweller to painted lady of the tropical hothouse is chronicled in the many magazines and journals intended for a botany-crazed public in the 1800s. Periodicals such as The Botanical Cabinet, Curtis's Botanical Magazine, The Floricultural Cabinet, and Edwards's Botanical Register from Great Britain; Flore des Serres et des Jardins de l'Europe and La Belgique Horticole from Belgium; and Revue Horticole from France were all illustrated with detailed and meticulously hand-colored copper plate engravings or lithographs. Sinningia speciosa was featured in three publications in 1817, all of which show very typical wild "gloxinias" that have nodding, bilaterally symmetrical flowers with lavender or purple corollas.

Scholarly articles in botany journals always cite the Loddiges publication as being the first for the species, which is probably correct, because the other two from 1817 both followed Loddiges' lead in adopting the name *Gloxinia speciosa*. However, there is no type specimen designated for *Sinningia speciosa*, although it was 'lectotypified' as *Ligeria speciosa* by Morton and Denham (1972).

The image in *The Botanical Cabinet*, plate 28, was drawn by George Loddiges himself and engraved on copper by George Cooke. There were two versions, one of which is shown on page 16. As was common at that time, *The Botanical Cabinet* was sold by subscription in monthly installments known as "fascicles" each of which contained 10 colored plates with descriptions. Ten fascicles made up one volume, accounting for the 20 volumes published continuously over 17 years. The works could be purchased in either quarto (4°) or the smaller duodecimal (12°) size format (Garay 1969). The image size was the same in both, but it was only partially colored in the smaller version and thus cost less. According to Rudolph Jenny, the quarto fascicles sold for 5 shillings, while the duodecimal fascicles were half that price.

In the four decades that followed the introduction of *Sinningia speciosa* in 1815, several major changes occurred in the cultivated plants as a result of hybridization and breeding. They became larger with new flower colors and patterns, and the flower form changed. This progression is well documented in the antique literature (summarized in Table 1 as supplemental information to this article available on The Gesneriad Society Website). Introductions of diverse wild forms collected in Brazil continued for nearly 30 years (although *S. regina* pushes this to 1903). I was unable to find any images of new "gloxinias" published during the ten-year period from 1817 until 1827, when *Gloxinia caulescens* was figured in *The Botanical Register* as "Miller's Pernambuco Gloxinia."



Gloxinia caulescens illustrated as "Miller's Pernambuco Gloxinia" in The Botanical Register (1827)



Gloxinia speciosa var. albiflora illustrated in Curtis's Botanical Magazine (1833)



Gloxinia rubra illustrated in Paxton's Magazine of Botany (1840)



Gloxinia speciosa var. macrophylla illustrated in Curtis's Botanical Magazine (1842)

At least four images of *Gloxinia caulescens* were published up until 1849, and it is unclear why it was given a species name distinct from *G. speciosa*. One possible reason is that the original collection was said to be from Pernambuco (hence the name), a state in northeastern Brazil that is about 1500 km (925 miles) from the northeastern edge of the species' documented range in Espirito Santo. Given that this is the only record of *Sinningia speciosa* from Pernambuco, there is a very good chance that it is incorrect. The first image of a "gloxinia" with white flowers (*G. speciosa* var. *albiflora*) appeared in 1833, although there are references to *G. candida*, another whiteflowered collection that was never properly published, as early as 1832 (*The Atheneum*, March 10, 1832; page 163). Plants with larger leaves, such as *G. speciosa* var. *macrophylla*, and also larger flowers, such as *G. Passinghamii*, were imported into Great Britain during this period.

An important wild introduction was *Gloxinia rubra* (*G. speciosa* var. *rubra*), which was collected by W.D. Brackenridge in Brazil in 1838². There are at least three known images of this singular plant, the first from *Paxton's Botanical Magazine* in 1840, shown above. The flowers of *G. rubra* were described as being "a deep rich blood-red colour" when they first opened, later fading to crimson with a small amount of blue in the throat (Paxton 1840). In his account of the discovery, written nearly 50 years after the fact, Brackenridge (1886) states that *G. rubra* was found growing amongst a large population of purple-flowered individuals of *G. caulescens* on wet rocks at the base of Corcovado Mountain in Rio de Janeiro. It was the only red-flowered plant found, and he considered it to be a "mere sport or variety" rather than a new species, as was advocated by Dr. (John) Lindley. He also

² Note from Larry Skog: "At this time in 1838, Brackenridge was employed as assistant botanist on the U.S. Exploring Expedition (also known as the "Wilkes Expedition"), an around-the-world multi-year research expedition, the first officially funded by the U.S. government. The collections from this trip were the basis of the collections of the Smithsonian Institution."

expressed his view that it should be crossed with other types of *G. speciosa* in cultivation to produce "intermediate varieties."

Brackenridge goes on to describe how he sent the tuber (illegally and without permission, "...my scruples about disobeying orders were overcome" [Brackenridge 1886, page 59]) to his friend, Robert Buist, in Philadelphia, who was able to propagate it. Buist then sold the entire stock to a nursery in England, unaware that some leaves had been stolen. When Gloxinia rubra turned up for sale at another English nursery, a financial dispute ensued, which was only resolved when Mr. Buist refunded some of the money he was paid for his plant. According to the article in *The Floricultural Cabinet*, this plant sold for three guineas each, which was quite a sum in 1841 (1 guinea = 21 shillings = £1+1 shilling). To the best of my knowledge, no other examples of wild Sinningia speciosa with true red flowers have ever been documented, so it is very probable that the modern Florist Gloxinia cultivars with red flowers are all descended from this one plant. G. rubra is encountered many times in the 19th century botanical literature, often in the context of its use as a parent in named hybrids.

"Gloxinia" hybrids began to appear in botanical periodicals before 1840, and as was the fashion at the time, these early plants were all given illegitimate species names. The first was an interspecific Sinningia hybrid known as 'Dr. Younge's Sinningia' (Sinningia velutina \times S. speciosa). This would have originally been considered an intrageneric hybrid because G. speciosa had not yet been transferred to Sinningia. Dr. Younge's Sinningia seems to have had lasting popularity – there are four or five images of it known between 1836 and 1857. The first intraspecific hybrid was G. maxima in 1838, which was notable for its large flowers. The article accompanying the image states



Gloxinia Passinghamii illustrated in Paxton's Magazine of Botany (1846)



Sinningia 'Youngiana' illustrated in Curtis's Botanical Magazine (1856)

that it came from crossing G. speciosa (purple flowers) with G. candida, but that is all that is known.

A second unusual and popular hybrid went by the name *Gloxinia* 'Teuchleri', named for a Mr. Teuchler (or Teichler). This intraspecific hybrid involving *G. rubra* and *G. speciosa* had very unusual and unique flowers. The pattern of purple striping against a red background is faithfully reproduced in all five of the images published between 1846 and 1849. The random nature of the purple streaks and splashes is very similar to corolla patterning seen in some petunia cultivars. (In petunias, this is attributed to a transposable element (a so-called "jumping gene") that is inserted into one of the genes for pigment biosynthesis but that occasionally excises in some cells early in flower development (i.e., it is unstable, leaving a purple sector on the red background [inset on page 21].) Another hybrid was *G. rosea alba* from 1844, in which *G. rubra* was used as the male parent in a cross with the aforementioned white-flowered *G. candida*.

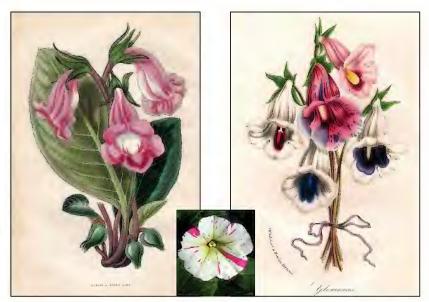
Unfortunately, none of these early "gloxinia" hybrids are known to have survived to the present. But it was the appearance of *Gloxinia Fyfiana* in 1845 that marked a watershed event in the horticultural history of *Sinningia speciosa*. In addition to publication of its image in 1847 in Harrison's *The Floricultural Cabinet*, it was also featured, both individually and as part of a group, in at least four other publications in 1848 and 1849. The best image, which approaches the quality of a botanical illustration, is from *Flore des Serres* in 1848 (page 22). This exact image, along with a German translation of the French text by Charles Lemaire, was reprinted in *Deutches Magazin* in the same year.



Gloxinia 'Maxima' illustrated in Paxton's Magazine of Botany (1838)



Gloxinia 'Teuchleri' illustrated in Flore des Serres (1847)



Gloxinia rosea alba (left) illustrated in The Florist's Journal (1844) and (right) five named Gloxinia hybrids (including *G. Teuchleri*) illustrated in Flore des Serres (1847). The inset shows a flower of Petunia W138 that carries an unstable transposon inserted into a gene required for anthocyanin biosynthesis (image courtesy of Cris Kuhlemeier)

Sinningia According to Fyfe

John Fyfe, the originator of the plant that bears his name, apparently left no written records from this time. Joseph Harrison, writing in *The Floricultural Cabinet* of March 1847, speculated that one parent of *Gloxinia Fyfiana* must have been *G. maxima*, but the other was unknown. And although Harrison's opinion was restated many times in print well into the late 19th century, the matter was never really resolved.

A diligent Internet search turned up a very well-written article from *The Gardener's Monthly and Horticulturist*, December 1879 by a "Mr. Fyfe, Mount Auburn, Mass." – none other than the John Fyfe of "gloxinia" fame. Writing 35 years after he saved the seed that gave us *Gloxinia Fyfiana*, Fyfe spends much of the article describing the "gloxinia" and providing tips on its cultivation, diseases, etc., but he also discusses the origins of *G. Fyfiana*. He tantalizes the reader by confirming that the seed parent was *S. speciosa*, but he fails to name the particular cultivar. And his account only perpetuates the confusion because of the following baffling statement: "... the parent plant of *Gloxinia Fyfiana* was profusely dusted with the pollen of *Digitalis purpurea* (foxglove), *Lophospermum scandens*, *Datura wrightii*, [and] *Brugmansia sanguinea*" (Fyfe 1879). The one thing that these species share with *Sinningia speciosa* is that all four are in the order Lamiales, but not one of them is classified in the family Gesneriaceae. The deep phylogenetic distances between the Gesneriaceae and both the Solanaceae (*Datura* and *Brugmansia*)





The two original depictions of *Gloxinia Fyfiana* – the left illustration from The Floricultural Cabinet, 1847, and the right from Flore des Serres, 1848

and Scrophulariaceae (*Digitalis* and *Lophospermum*) make this parentage extremely unlikely. Remarkably, there is at least one report of such a wide hybrid: Campbell's Hybrid Foxglove (*Digitalis hybrida*) was purported to have come from crossing *D. ambigua* (= *D. grandiflora*) as a female with *Sinningia speciosa* (Maund 1834-5). The accompanying image showed an inflorescence that strongly resembles that of *Digitalis*, with little apparent contribution from *Sinningia speciosa*, however.

Fyfe's article is enjoyable to read, and it ends humorously, with the tale of a theft similar to what happened with *Gloxinia rubra* a decade earlier. Fyfe had exhibited a large plant of *G. Fyfiana* at a meeting of the Dunoon Horticultural Society but left it in the care of others when he was called away to officiate as a judge. He returned to find that some leaves had been stolen, and later that year plants were being sold "for a sovereign each ... by some of the London Nurserymen." This sounds like a lot of money to spend on a houseplant at that time (a sovereign was equal to £1 sterling), which according to a money converter from the UK National Archives is equivalent to £58.53 (\$96 US) today.

I located a list of *New, Rare, and Choice Stove Plants* available from the nursery of Messrs. Henderson, Pine Apple Place, London, where *Gloxinia Fyfiana* could be purchased for 3s6d in 1850. *G. Fyfiana* was a very popular plant in its time, and the 19th century botanical literature is full of references to it being displayed in regional horticultural shows throughout the United Kingdom. There is even a record of "our old friend, *G. Fyfiana*" being shown at a meeting of the Pennsylvania Horticultural Society in 1855 (*Horticulturist and Journal of Rural Art and Rural Taste*, vol. 5, page 342).

Hybridizing

Mr. Fyfe's "Gloxinia" had a profound and lasting effect on *Sinningia speciosa* as a horticultural crop (Sprague 1904). Prior to the early 1850s, all named cultivars, with the exception of *Gloxinia Fyfiana*, had nodding flowers that were larger than those of wild-type plants and came in colors from white to red and purple. Commercial nurserymen, such as Mr. Haage of Erfurt (Germany), successfully incorporated the upright flower trait into improved "gloxinia" cultivars by crossing established varieties with 'Fyfiana' (Harrison 1855). In Belgium, the Établissement Horticole de Louis Van Houtte was very active in breeding and releasing named peloric cultivars, and this is reflected in the pages of several Belgian periodicals well into the 1870s.

The first image of an erect-flowered hybrid of *Sinningia speciosa* that I found was that of 'Princess de Prusse' (with red and white flowers) from *L'Illustration Horticole* in 1854. From this time until around 1895, there is a wide diversity of new commercial varieties being illustrated, many with proper cultivar names such as 'Don Pedro V' (pink and white), 'Fulgens' (red and white), 'Lady Grosvenor' (purple and white), 'Fairy' (pink and white), 'Helen of Orleans' (purple and white), and 'Cordon Lavande' (white with lavender border).

Plants of this type were extremely popular with the public and by the end of the 19th century had all but displaced the earlier forms with nodding flowers. To illustrate this, out of 37 named varieties grown for evaluation in the trials at Chiswick (west London, England) in 1862, 17 (46%) had erect flowers. By 1878, this number had grown to 78% (59 out of 76) at these same



Gloxinia 'Princess de Prusse', the first known illustration of a peloric hybrid other than *G. Fyfiana* (illustration from L'Illustration Horticole, 1854)



Gloxinia hybrids 'Lady Cremorne' and 'John Grey', the first images of double-corolla Gloxinias (illustration from The Floral Magazine, 1868)

trials (T. Moore 1863; Barron 1879). The lists of cultivars in these two references provide brief descriptions of the plants, as well as the name of the originator, and give us a sense of what was current at that time. Harold E. Moore Jr. (1917-1980), a professor of botany at Cornell University and devoted student of the Gesneriaceae, established three groups or 'convarieties' within *Sinningia speciosa* based on flower type: *speciosa, maxima*, and *Fyfiana* (H.E. Moore 1957; page 312). He included all of the peloric cultivars in the 'Fyfiana Group', a taxonomic designation that is still encountered today.

Further Milestones

In addition to flower type, two other developments are important in "gloxinia" history: the development of plants with (1) spotted flowers and (2) double corollas. The class of "gloxinias" generally referred to as 'tigrinas' are characterized by having the corolla pigmentation distributed as very small spots rather than uniformly. The first images of such flowers were both published in 1867, in Revue Horticole and La Belgique Horticole. A third image, that of the highly spotted Gloxinia variabilis, is from Revue Horticole in 1877. Edouard Morren, writing in La Belgique Horticole, states that these types arose spontaneously from Sinningia speciosa (cited in H.E. Moore 1957, page 94). However, a Monsieur Duval, writing many years later, claims that Jules Vallerand crossed "the Sinningia-Gloxinia" with *Gloxinia erecta* (Duval 1900) to get the spotted types. "Sinningia-Gloxinia" refers either to Sinningia guttata, which has a heavily spotted corolla, or a hybrid between this species and S. speciosa. I located at least five references in the old literature where such hybrids are discussed, often with the other parent being G. rubra. From personal experience, I know that S. speciosa and S. guttata will produce viable hybrids, and that backcrossing the F₁ to S. speciosa can give "gloxinias" with fully peloric flowers in later generations – but that is another story.

Images of "gloxinias" with semi-double corollas were first seen in The Floral Magazine in 1868. According to the accompanying text, these plants came from Ireland in 1864 and were named for Lady Cremorne and her gardener, John Grey, their originator. This form of corolla doubling is different from the fully doubled flowers we know today: These early forms have extra petal tissue, which often arises from the calyx, on the outside of the corolla tube. In modern doubles, the stamens are converted to corolla tissue, which is why there is usually little or no pollen produced in these flowers. This mutation has been shown to be genetically dominant (Clayberg 1975), and seed of double-flowered cultivars give plants that are 50:50 singles and doubles. This mutation most probably arose in the latter 20th century, since double-flowered "gloxinias" are not mentioned by H.E. Moore (1957) or in either the first or second editions of Peggie Schulz's book Gloxinias and How to Grow Them (Schulz 1953, 1965). However, they do show up in chapter 19 of Gesneriads and How to Grow Them (Schulz 1967), where they were said to have originated in Europe.

The images on page 25 show two chromolithographs from the late 1890s that visually summarize the diversity of *Sinningia speciosa* cultivars available at the end of the 19th century. In the course of about 85 years, plant breeders with no quantitative knowledge of genetics had transformed this humble wild plant that is so well adapted to life in the Atlantic coastal forest of Brazil into an extravagant ornamental that can survive only in the care of humans.





Chromolithographs from L'Illustration Horticole, 1895 (left) and The Flower Growers Guide by John Wright, 1896 (right). These flowers represent the pinnacle of the Gloxinia breeders' art, and show the diversity of colors and patterns that had been achieved by the end of the 19th century.

Louis Van Houtte in Belgium, Jules and Eugène Vallerand in France, and the Veitch nurseries in Great Britain were among those responsible for this transformation and for popularizing the plant in Europe during the latter half of the 19th century. By the mid-20th century, the focus had shifted to the United States, where firms such as Antonelli Brothers, Earl J. Small, and Buell's Greenhouses continued to breed new "gloxinias" for the commercial market.

Genes and Flowers

Several of the genes that determine flower form were first isolated and characterized in the snapdragon (*Antirrhinum majus*), which has become a model for the study of floral symmetry in one group of angiosperms. The two most studied genes, *cycloidea* (*cyc*) and *dichotoma* (*dich*), arose through a duplication event and then diverged somewhat through evolution (they are paralogous). *Cyc* and *dich* are somewhat redundant in function, acting together to determine the dorsal identity of floral organs such as stamens and petals. Mutations that destroy the function of either of these genes produce plants with unusual flowers.

Wild-type snapdragons have flowers with five petals, all of which are different. The two dorsal and the two lateral petals are uniquely asymmetrical, and the ventral petal shows bilateral symmetry. When *cyc* alone is knocked out, the mutant flowers are "partially ventralized", with the dorsal and lateral petals resembling the ventral one. Plants carrying mutations in both *cyc* and *dich* have flowers that are fully ventralized and unrecognizable

as snapdragons – all petals are identical to the ventral one, and the flower is radially symmetrical. In addition, there are now six petals, and the flowers have five fertile stamens instead of the usual four (summarized from Cubas 2004).

Michael Möller and colleagues were the first to isolate a region of the homologous gene from species in the Gesneriaceae (Möller et al. 1999). The partial sequence of this gene, named Gcyc, was subsequently used to investigate the evolution of floral symmetry in both Old and New World gesneriads (e.g., Smith et al. 2004). Citerne and Cronk (1999) compared the DNA sequence of this part of Gcyc from a peloric "gloxinia" cultivar with the Gcyc sequence from $Sinningia\ schiffneri\$ (which does not have peloric flowers). They identified a mutation (deletion of one 'A' residue) in the gene from the peloric cultivar that would alter the predicted Gcyc protein sequence to the point where it would no longer be functional. These authors then state that the mutation "...is therefore quite likely to be the one that occurred by happy accident in 1845 on Bute, and is preserved in today's cultivars."

It would certainly be nice if such a straightforward explanation could account for the radical change in floral form in cultivated *Sinningia speciosa*, but much more research is needed before any such statement can be made. To date, no independent confirmation of the mutation has been published, nor have any gene expression analyses or inheritance studies. In my work, I have sequenced this region of *Gcyc* from 12 wild *S. speciosa* collections, several peloric cultivars, and the related species *S. guttata* and *S. macrophylla*, and I have never found the mutation described by Citerne and Cronk. I recently isolated and sequenced the entire *S. speciosa Gcyc* coding region from several wild-type and peloric plants. None of them had the single 'A' deletion, but I did find a different mutation in another region of the gene, and only in the peloric cultivars. Still, the presence of this mutation is only correlated with the peloric flower trait, and more genetics remains to be done.

Note: Supplemental information to this article is available on The Gesneriad Society Website: Table 1 (List of illustrations and references); additional images of *Sinningia speciosa* (wild forms, cultivars, and hybrids); article "Finding John Fyfe."

References

Barron, A.F. (1879). Report on gloxinias. Journal of the Royal Horticultural Society 5: 187-194. Brackenridge, W.D. (1886). A chapter in the secret history of the gloxinia. Gardener's Monthly and Horticulturist 28: 59-60.

Citerne, H. and Q.C.B. Cronk (1999). The origin of the peloric *Sinningia*. New Plantsman 6: 219-222.

Clayberg, C.D. (1975). Genetics of corolla traits in gloxinia. Journal of Heredity 66: 10-12.

Cubas, P. (2004). Floral zygomorphy, the recurring evolution of a successful trait. BioEssays 26: 1175-1184.

Duval, M. (1900). Gloxinias and their artificial fertilisation. Hybrid Conference Report. Journal of the Royal Horticultural Society 24: 333-336.

Fyfe, J. (1879). Hints on the cultivation of choice gloxinias. Gardener's Monthly and Horticulturist 21: 359-360.

Garay, L.A. (1969). Dating of the Botanical Cabinet and of Paxton's Flower Garden. Taxon 18: 709-712.

Harrison, J. (1855). Gloxinias. Floricultural Cabinet 23 (unstated): 97-98.

Hiern, W.P. (1877). Gesneraceae. In: Symbolæ ad floram Brasiliæ centralis cognoscendam, E. Warming (ed.), part XXIII. Vidensk. Meddel. Dansk Naturhist. Foren. Kjobenhavn 1877-1878: 87-94.

Jenny, R. (2008). The Botanical Cabinet. Lankesteriana 8: 43-52.

L'Héritier, C.-L. (1789). Gloxinia, page 331, in Aiton, Hortus Kewensis, volume 2.

Loddiges, C. (1817). Gloxinia speciosa. Botanical Cabinet 1: pl. 28.

Maund, B. (1834-5). Botanic Garden 5: no. 468.

Möller, M., M. Clokie, P. Cubas, and Q.C.B. Cronk (1999). Integrating molecular phylogenies and developmental genetics: a Gesneriaceae case study. Pp. 375-402 in P.M. Hollingsworth, R.M. Bateman and R.J. Gornall, eds. Molecular Systematics and Plant Evolution. Taylor & Francis, London.

Moore, H.E. (1957). African Violets, Gloxinias, and Their Relatives. The Macmillan Co., New York.

Moore, T. (1863). Report on gloxinias grown for trial at Chiswick in 1862. Proceedings of the Royal Horticultural Society, London 3: 80-82.

Morton, C.V. and D. Denham (1972). Lectotypifications of some generic names of Gesneriaceae. Taxon 21: 669-678.

Paxton, J. (1840). Gloxinia rubra (red-flowered Gloxinia.) Paxton's Magazine of Botany 7: 271-272

Schulz, P. (1953). Gloxinias and How to Grow Them. M. Barrows and Co., New York.

Schulz, P. (1965). Gloxinias and How to Grow Them. Revised edition. M. Barrows and Co., New York.

Schulz, P. (ed) (1967). Gesneriads and How to Grow Them. Diversity Books, Grandview, MO.

Skog, L.E. and J.K. Boggan (2007). World Checklist of Gesneriaceae. Washington, DC: Dept. of Botany, Smithsonian Institution. http://botany.si.edu/Gesneriaceae/Checklist>.

Smith, J.F., L.C. Hileman, M.P. Powell, and D.A. Baum (2004). Evolution of *GCYC*, a Gesneriaceae homolog of *CYCLOIDEA*, within Gesneriodeae (Gesneriaceae). Molecular Phylogenetics and Evolution 31: 765-779.

Sprague, T.A. (1904). Sinningia regina. Gardener's Chronicle 36 (3rd series): 87-88.

Zaitlin, D. and A.J. Pierce. (2010). Nuclear DNA Content in Sinningia (Gesneriaceae); intraspecific genome size variation and genome characterization in S. speciosa. Genome 53: 1066-1082.



Morphological diversity in *Sinningia speciosa*. Wild collections shown are 'Espirito Santo' (upper left) collected in the southern part of Espirito Santo state, 'Carangola' (upper right) from Minas Gerais, 'Cardoso Moreira-pink' (lower left) and 'Cardoso Moreira' (lower right), both from Rio de Janeiro state.

Growing Florist Gloxinias Down Under

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In the early 1930's, my mother showed me how to propagate cane begonias. When I was successful doing this, it gave me a real buzz. Then in 1946 when I was home from the war, I fell victim to a nervous breakdown. After some time, I found the courage to tell my doctor who immediately prescribed a course in gardening to concentrate on. I was fortunate to see *Sinningia speciosa* plants, which were grown by an English gentleman and a neighbor of my brother. The flowers really fascinated me, and early in 1947 my gesneriad journey commenced.

As the months went by, my health improved and I was completely hooked. The gloxies eventually helped me through my crisis and I subsequently put up greenhouses in my backyard. With hanging space and bench space to grow 600 or more *Sinningia speciosa* plants in five-inch pots, I could select the best for the Royal Easter Show where the competition was very strong and the classes called for twelve, single-cut blooms. I won my first champion ribbon in 1960.

Over many years I learned to have plants flower on time for the Royal Easter Show. Sowing the seed in November, I have flowering plants from early March through to April and May. During 50 years of attending the shows, I have accumulated more than 500 Champion ribbons.

The finale at these shows, which include rose, dahlia, bonsai and cactus growers, is to win a Banksian Medal for scoring the most points over the approximately ten days. When you win this medal you are not eligible for two years to compete for it. I have won ten Banksian Medals, the first one in 1967. The other medal, the John Baptiste, is for the most number of first prizes won during the show, and I have also won ten of those medals. In the later years (I think the 1970's), I was fortunate to find pollen on a double red *Sinningia speciosa*, which I used to pollinate my single types that had produced some delightful blooms in different shapes and colours with strong stems and also many blooms per plant. Evelyn (my wife of 65 years) has been involved with the growing of the plants and loves all the other gesneriads such as Kohlerias, Achimenes, Eucodonias, etc. She has also been helpful in selecting the show plants.

It was a very enjoyable day when Dale Martens visited my home in 2006. Thirty club members were present as Dale gave us an insight into the workings of The Gesneriad Society and a delightful time was had by all.

In recent times I have concentrated on producing a series named "Rainbow" which has variations in markings and color, plus the blooms are an excellent shape. I have been rewarded with lots of potential show blooms ... and the growing continues.

Sinningia speciosa hybrids by Charles Lawn













Dale Martens and Charles Lawn

Smell of Success: Hybridizing Sinningia speciosa for Scent

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About twenty years ago I ordered from the Seed Fund a packet of *Sinningia speciosa* "Small's Dwarf Mix," which the name implied would be small-growing plants. I'd never grown Florist Gloxinias from seed before, so I thought that would be fun. I think every seed sprouted in less than a week, and all were nicely compact in size. One day I happened to walk past the seedlings at around 4 a.m. (my normal wake-up time) and smelled something very sweet and cinnamon-spicy. Ah! It was one of the seedlings. So I selfed that seedling hoping to get a hybrid with a more intense scent.

It takes only around 30 days for the seeds to ripen and another five months to get a blooming plant, so time to bloom is pretty quick. The majority of the seedlings had scent, which caused a lot of "Happy Hybridizer Dancing." I took the seedling with the strongest scent, and selfed it. From that selfing, the seedling that was the prettiest and had the strongest cinnamon scent was named *Sinningia* 'Touch of Spice'. It was basically bright magenta-pink with a white center.

I thought I had the only scented *Sinningia speciosa* until I was asked to teach a judges' school in Toronto. Someone had brought a *S. speciosa* 'Diego' with bright red flowers in full bloom. The peppery scent from it was so strong I got a headache! So now I knew there were other *S. speciosa* plants with scent and that not all had a cinnamon scent.

In 2004 Marilyn Allen registered a seedling she grew from Robert Hall's cross of *Sinningia* 'Diego' × S. 'Touch of Spice'. The background story is that Marilyn suggested to Robert that the seedling she grew be named and he

responded that Marilyn should name it. She thought the name should have something to relate to Robert who had lived in the Caribbean. He mentioned a dish popular throughout the Caribbean known as "pepperpot," which is a spicy, peppery stew. The name Marilyn gave this hybrid with a peppery scent was *S.* 'Scentsational Pepperpot'.

Thinking about Sinningias with scent brings to mind another collaboration and this time I was involved. I had Sinningia guttata in bloom and wondered if it could be crossed with a miniature Sinningia. The miniature that was in bloom was an unnamed hybrid with purple and white flowers. It was too similar to S. 'Flair' to name, so I put its pollen on S. guttata and got seeds! At the time my husband and I were moving to Illinois, so I didn't have time to sow and grow out the seedlings but my friend David Harris, the commercial grower in Missouri who hybridizes the "Ozark" Sinningias, offered to grow out some for me. When the seedlings flowered, many had scent. David had several people sniff the flowers and the one with the strongest scent was selected for naming. I said he should have "Ozark" as the alpha name since he grew the hybrid. So we thought about a good name and came up with S. 'Ozark Scentimental Journey'. It has been propagated and distributed and received its first award at the 2007 Convention when Thad Scaggs won a blue ribbon in the Sinningia class as well as an award for Best Scented Gesneriad.

I know from hybridizing the scented *Streptocarpus vandeleurii* and *S. candidus* that scent can be passed on to progeny through the pollen parent. I hoped that was true for Sinningias. In 2009 I put pollen from a scented *S. speciosa* onto a non-scented Iain James hybrid, *S.* 'Peridots Darth Vader', but did not get scent in the progeny. Later I put pollen from the very sweet, floral-scented *Sinningia richii* 'Robson Lopes' onto a miniature Sinningia. This resulted in seedlings with pretty flowers with yellow on them, but the scent was not passed on. The same thing happened when I used *S. guttata* as the pollen parent. So that may indicate that the scent in some Sinningias is passed on to progeny only when the seed parent is scented.

Whenever you see a grouping of *Sinningia speciosa* hybrids at a floral shop or garden center, give each bouquet a quick sniff. You just might be rewarded with scent.



Sinningia 'Touch of Spice'



Sinningia 'Scentsational Pepperpot'

Back to Basics: My Florist Gloxinia Finished Blooming, Now What?

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The Florist Gloxinia (*Sinningia speciosa*) is a very common gift plant as the dramatic, long-lasting flowers with their velvety texture make quite an impression. What most don't realize is that after the top of the plant looks dead there is a tuber in the pot that can be saved for another cycle of blooming. Tubers easily exist for ten or more years. When there are no more buds to bloom and the leaves on the plant begin turning yellow or brown, it's time to decrease the amount of water the plant receives. Keep the soil barely moist for at least a month after the plant begins to decline.

When the plant looks really bad, it's time to go to work to store the tuber. Remove the plant from the pot and, using scissors, remove the dead leaves. Keep about an inch or two of old stem attached to the tuber as new growth usually sprouts near the base of the old stem. Take off as much soil and roots as possible from the tuber and dunk the tuber repeatedly in a bucket of lukewarm water. I find it easiest to gently wash the tuber using an old, clean paintbrush. Be careful not to remove the outer "skin" off the tuber.

The clean tuber now needs to be stored for a few months, but it should not be allowed to dry out. One method is to store it in a zip-lock, plastic bag with moist sphagnum or vermiculite. Write the name of the plant and the date on the plastic bag. If sphagnum is used, soak the sphagnum, then squeeze out most of the moisture with your hands before putting it in the plastic bag. A medium that is too wet can cause the tuber to rot, so err on the side of the medium being too dry. To surround the tuber with moisture, I put the moist medium in the bottom of the bag, then place the tuber on top with more moist medium on top of the tuber. I then store the tuber in a box in the closet along with other tubers and rhizomes. I suggest having a plant calendar on which you can write reminders or write notes when something bloomed. African violet growers often mark on their calendar dates to increase tube light or change fertilizers for a show. Make a note to check the tuber in 30 days.

On the 30-day check, make sure the medium is still moist and add drops of water if it is too dry. If the old stem is dried out or rotted, use scissors to remove it. Check to see if there are sprouts and if there are none, mark the calendar to re-check in another 30 days. (Usually it takes only two or three months for the tuber to sprout again.) When the tuber sprouts, find a pot about an inch wider and two inches taller than the tuber. You will be transplanting in four weeks, so it is important to use a small pot at first. If the tuber just barely has a sprout (sprout is less than two inches), put enough soilless mix in the pot so that the tuber's top is one and a half inches below the surface of the soil. Clear the area right above the new sprout so it "sees" light. If the tuber has a long sprout (more than 2-1/2 inches) and there are at least six leaves on the sprout, remove the bottom two leaves. Put enough soilless mix in the pot so that when the tuber is placed in the pot, the soil line goes past where you just removed leaves and up to the base of the lowest set of leaves. Put the pot's top within 10 inches of tube light. This might mean

that you have to place something under the pot to raise it to that level. Feed the plant 1/4 teaspoon of balanced fertilizer per gallon of water.

In another 30 days, it's time to re-pot the plant into a four- or five-inch pot, depending on how big the plant is. If it has produced more than one growth stem, remove all but one so that the main plant won't have to compete for growing space. Set aside the extra cuttings. At this time remove the bottom two leaves and pot the plant deeper in the larger pot, up to the lowest set of leaves. This will firmly anchor the plant in the pot so it can support a nice head of flowers. Don't disturb the root ball. Because it's easy to overwater and tubers rot in soggy soil, I like to put 1/4 to 1/2 inch of perlite in the bottom of the final pot so that if the pot sits too long with a saucer full of water, the soil is less likely to become too soggy. It's best if the saucer is emptied within an hour of watering the pot. Continue feeding as in the past. You need to turn the pot a quarter turn at least once a week in order for the plant to grow symmetrically. If you grow under fluorescent tube light, put the plant's upper leaves within 12 inches of the tubes. The plant needs 11 to 13 hours of tube light per day.

If the tuber made extra sprouts that you removed, fill a small pot with moist (not soaking) wet sphagnum or vermiculite/perlite mix. Remove the bottom two leaves of the sprout and pot the cutting in the moist medium up to the base of the next set of leaves. You might need to use supports such as thin plastic straws to hold it upright. Place the newly potted cutting into a terrarium environment (or baggie) for at least three weeks to allow it to root. When you later transplant it, try not to remove any roots when you place it in your regular, soilless mix.

Now enjoy your tubers for a decade or more!



Achimenes Liepmannii and Gloxinia Cartonii (illustration from The Floricultural Cabinet (1846)

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Coming Events

September 17 & 18 - California - Delta Gesneriad & AVS annual judged show and sale at Sacramento Garden & Arts Center, 3330 McKinley Blvd, Sacramento. Saturday 1 to 4 p.m.; Sunday 11 a.m. to 3 p.m. Free admission and parking. Contact <www.sacviolets.org> or Lynn Lombard 530-637-9000.

September 17 & 18 - Maryland - National Capital Area Chapter judged show and sale "Gesneriads on Broadway" at Behnke's Nursery, 11300 Baltimore Ave., Beltsville. Saturday noon to 6 p.m.; Sunday 9 a.m. to 5 p.m. Contact Jim Roberts <jim-roberts@hughes.net> or 410-227-2324.

September 24 & 25 – Massachusetts – New England Chapter combined show and sale, Tower Hill Botanic Garden, 11 French Drive, Boylston. Saturday 10 a.m. to 5 p.m.; Sunday 10 a.m. to 4 p.m. Participating with Buxton Branch American Begonia Society. Admission \$10 adults; \$7 seniors; \$5 youths (6-18). Contact <stuarthammer@charter.net> or 617-479-3680.

October 2 – New Jersey – Frelinghuysen Arboretum Chapter judged show and sale "In Tune with Gesneriads" at the Frelinghuysen Arboretum, Morris Township. Sunday 11 a.m. to 3:00 p.m. Free admission and parking. Contact Karyn Cichocki <kdc05@ptd.net>.

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Botanical Review No. 37

Bob Stewart <aeschynanthus@verizon.net> Stow, Massachusetts, USA

• Phylogenetic reconstruction among the species of *Chiritopsis* and *Chirita* sect. *Gibbosaccus* (Gesneriaceae) based on nrDNA ITS and cpDNA trnL-F sequences. Li, J. M. & Wang, Y. Z. Systematic Botany 32: 888-898. 2007.

The genus *Chiritopsis* contains several species of modest-sized rosette plants with small flowers. They grow in southern China, exclusively on limestone.

David Wood in his revision recognized three sections in the genus Chirita.

The *Gibbosaccus* section includes most of the rosette-form plants popular with growers. These plants occur from southern China through Vietnam, usually on exposed limestone. They are rosulate perennials with a thick rhizome (stem and main root, not "scaly rhizome") and free (not joined at the base) calyx lobes.

The *Microchirita* section includes the plants known to growers as "annual Chiritas." They are monocarpic (bloom once and then die) plants, with the flower stems attached along the leaf petioles.

The *Chirita* section includes essentially everything else in the genus. The calyx lobes are more or less fused into a tube.

Some authors add a fourth section to hold *Chirita asperifolia* and its near relatives.

The authors of the present paper use DNA evidence and data on the shape of the flowers to analyze the relationship of *Chiritopsis* to the other groups. Their data show that the *Chiritopsis* and *Gibbosaccus* groups have distinct floral differences, but are more closely related to each other than to the other two sections of *Chirita*. The authors suggest that it may be useful to classify *Chiritopsis* within *Chirita* sect. *Gibbosaccus*, but they do not explicitly propose name changes in this paper. I believe that we can expect to see this and other changes soon, however.

• Folia Taxonomica 6. Two New Species of *Besleria* (Gesneriaceae) from the Venezuelan Guayana. Feuillet, C. Journal of the Botanical Research Institute of Texas 2(1): 269-273. 2008.

Plants from the genus *Besleria* are reasonably common in museum collections but are seldom seen in cultivation. They tend to want high humidity, and many are rather large; This can be a difficult combination for home growers.

Besleria neblinae and Besleria yatuana are both a little large for the light garden, at about 1m tall. The flowers are white, on the order of 25mm (one inch) long. Both come from wet places in Amazonian Venezuela. They differ in details of the hairs, and the second species has strongly unequal leaves. They would probably like warm temperatures and high humidity if they were to appear in cultivation.

• Folia Taxonomica 7. Two New Species and a New Section in *Episcia* (Gesneriaceae) from the Venezuelan Guayana. Feuillet, C. Journal of the Botanical Research Institute of Texas 2(1): 275-280. 2008.

Species and hybrids of *Episcia* are popular horticultural subjects, and new species should be interesting.

Episcia duidae is reported to have crimson flowers resembling E. reptans, but with parts about half the size and much hairier vegetative parts. Judging from the photograph of the herbarium specimen, the hairiness will be quite striking. It was found in Amazonian Venezuela, but at 1500m to 2000m altitude, which raises the possibility that it might be more tolerant of cooler temperature than is typical for the genus. It was found at the base of waterfalls and in wet crevices. It is referred to as "mat-forming" – possibly implying a dense growth habit. The combination of qualities makes it a potentially interesting subject for horticulture.

Episcia rubra is reported to resemble *E. fimbriata* and *E. sphalera* vegetatively, but with red flowers. It was found in Amazonian Venezuela at low (warm) altitude, in crevices in a moist, shady, rock canyon.

• Folia Taxonomica 10. New Species of *Nautilocalyx* (Gesneriaceae: Episcieae) from the Venezuelan Guayana. Feuillet, C. Journal of the Botanical Research Institute of Texas 2(2): 825-836. 2008.

Nautilocalyx crenatus comes from 800m to 1200m altitude in crevices and wet rocks. The plant is of modest size and has red flowers. It resembles *N. cataractarum* but is smaller and the flowers are a true red.

Nautilocalyx paujiensis comes from similar altitude and also has red flowers, but the plant is on the order of a foot tall.

Nautilocalyx pusillus comes from a slightly lower altitude and also has red flowers. It resembles N. porphyrotrichus but has smaller leaves and flowers.

Nautilocalyx roseus has rather small "pale gray rose" flowers on a modest-sized plant. It somewhat resembles a long-stemmed version of *N. cataractarum*.

Nautilocalyx ruber grows at low to medium altitude. It is said to have leaf texture like *N. pemphidius* but with much larger red-orange flowers; This certainly sounds like an attractive combination.

Nautilocalyx orinocensis is apparently known only from one herbarium sheet. It has white flowers.

Nautilocalyx vestitus is densely covered in long hairs; This is unique for the genus.

• Folia Taxonomica 12. *Paradrymonia* (Gesneriaceae: Episcieae) from the Guiana Shield: *P. maguirei*, a New Species from Amazonas, and Distribution and Floral Morphology of *P. maculata*. Feuillet, C. Journal of the Botanical Research Institute of Texas 3(1): 133-138. 2009.

This paper describes the new species *Paradrymonia maguirei* with a loose rosette-like habit and biserrate (having teeth of two sizes) leaves. It is apparently known only from one herbarium specimen.

The new species is placed in the genus *Paradrymonia* for want of a better option; The author is of the opinion that this genus is likely to be broken up at some point in time.

The paper also has a discussion of *Paradrymonia maculata*. The plant is apparently fairly common at low altitude in the Guianas. This species climbs using short roots both at nodes and along the stem, and can become taller than most people. The floral structure is quite striking. The corolla itself is large, yellow with red dots, and has a lower lip folded upwards that acts as a cover closing off the tube! (The cover can be opened by squeezing the sides of the tube, rather in the manner of a snapdragon.) The flowers are surrounded by large bracts, yellow-green with red-purple veins. Closed flowers are often pollinated by strong insects, in particular by large bees. Some of you may have seen bumblebees fighting their way into the flowers of the "closed gentian" group in your garden. The author suggests carpenter bees for *P. maculata*.

I will mention that I have seen an *Episcia* that produced the same sort of closed flowers. I don't know whether the mutation is a simple one, or whether the genetic equipment for this type of flower is somehow latent in many gesneriads.

• Folia Taxonomica 15. Five New Species of *Paradrymonia* subgenus *Paradrymonia* (Gesneriaceae: Episcieae) from the Venezuelan Guayana. Feuillet, C. Journal of the Botanical Research Institute of Texas 3(2): 583-592. 2009.

The five new species are all described as resembling *Paradrymonia ciliosa* with various differences. That species has the usual lance-shaped leaf form, with a stem that tends toward horizontal and creeping rather than the vertical form of many other species. Most of the new species seem to have leaves that are quite a bit larger than

the *P. ciliosa* that I know of from cultivation, so perhaps the commonly cultivated plant is not identified correctly.

Paradrymonia glandulosa has the usual large lance-shaped leaf form. The leaves are strongly unequal in a pair; The larger leaf is quite large and the small leaf falls. It resembles *P. ciliosa*, with various differences of leaf form and flower shape.

Paradrymonia hamata also resembles P. ciliosa, with flowers almost twice as long.

Paradrymonia lutea also resembles P. ciliosa, but with bright yellow flowers.

Paradrymonia tepui also resembles P. ciliosa, but with multiple flowers open at once in a dense group.

Paradrymonia yatua resembles P. ciliosa, with various differences of leaf form.

Species of the typical types of *Paradrymonia* have never been overwhelmingly popular with growers. Many of them have large leaves, most of them have white flowers, and the flowers are usually low in the leaf axils. I have an interest in the unusual and have grown several species, and even made a (not-worthwhile) hybrid. Several of these new species look like they would be interesting to specialists such as me, particularly *Paradrymonia lutea* with bright yellow flowers.

• Systematics of *Glossoloma* (Gesneriaceae). Clark, J.L. Systematic Botany Monographs 88: 1-128, 40 figs. 2009.

A botanical monograph is an extended scholarly treatment of a single taxonomic entity at an advanced level. It will normally consider all known members of the group and provide a comprehensive review of the available information on the group members. Such a document provides a valuable compact resource for anyone wishing to learn about the taxon.

This monograph of *Glossoloma* covers a genus that includes most of the plants formerly assigned to the genus *Alloplectus*. The document provides complete descriptions of all 27 species (including five new ones), a key, distribution maps, illustrations, and much other material. It is impossible in a brief review to do more than give a glimpse of the wealth of information in the more than 100 pages of the monograph.

Glossoloma ichthyoderma (formerly Alloplectus ichthyoderma) is occasionally seen in cultivation, but the other species of the genus are seldom seen. Most of the plants in this genus have red or yellow pouched Nematanthus-like flowers; as such they could be of interest to growers looking for something new to try.

Most members of *Glossoloma* have resupinate flowers. That is, the flower is "upside-down" relative to most gesneriads. The anthers and stigma lie along the bottom of the flower rather than the top. The central petal is at the top of the ring rather than at the bottom. The "pouch" of the flower is at the top. If you want to get an idea of what this looks like, some species of *Nematanthus* (e.g., *N. fissus*) have resupinate flowers, or if your plants have an ordinary "belly-down" flower you can pick a flower and hold it "belly-up" and study the new appearance.

Most species of *Glossoloma* are terrestrial growers and have a shrub-like habit with an unbranched primary stem on the order of one meter (three feet) tall and leaves in terminal clusters. Opposite leaves are of equal size (unlike most *Columnea* species, for example).

Glossoloma species come from several different altitude levels, and thus have different temperature expectations. Knowledge of growing altitude (just one of the pieces of information in the descriptions) could be useful if you want to try growing one of these plants.

The monograph includes a taxonomic history of the group that illustrates some of the problems facing the early botanists and some of the reasons for the "name changing" problem that faces us today. The early workers had to sort out genera and assign names based on very limited collections, often only a single plant; They did not have the much more complete view of large numbers of species that is available today. The early workers had to sort out genera based on similar features, with no

access to direct genetic data. Later workers have discovered that many feature similarities evolve because of similar requirements on the plant (e.g., attracting hummingbirds) rather than representing direct inheritance from a common immediate ancestor. Because botanists now want their naming system tree structure to conform to their best understanding of the evolutionary tree structure (rather than simply to "similar features"), many early names must change.

Many of our readers have met John L. Clark at the annual conventions; This informative and readable monograph is based on part of his doctoral dissertation.

• Novae Gesneriaceae Neotropicarum XVI: Pearcea pileifolia, a New Species of Gesneriaceae from South America. Clark, J. L. & Skog, L. E. Novon 19: 439–443, 2009.

This paper describes a new species from Ecuador and Peru. It can be distinguished from other species of *Pearcea* by the strongly anisophyllous leaves (with the smaller leaf in the pair being quite tiny) and the oblong leaf blades with crenate or serrate margins. The species name refers to the leaves reminiscent of those of *Pilea*.

Another distinctive feature is that the position of the flower changes during development. Immature flowers are held close against the lower leaf surface. When the flower opens it is raised above the leaf.

The paper includes a complete description, illustrations and photographs, and additional information on fruit opening patterns in the genus.

The paper acknowledges support from the Elvin McDonald Research Endowment Fund of The Gesneriad Society; This is just one small example of the Society's funds supporting the generation of new scientific information.

• *Shuaria* (Gesneriaceae), an Arborescent New Genus from the Cordillera del Cóndor and Amazonian Ecuador. Clark, J.L., Neill, D.A., Weber, A., Gruhn, J.A., Katan, T. Systematic Botany 35(3): 662–674. 2010.

It is still possible to find not only a new species but an entirely new genus of gesneriad in the tropics. This paper provides the complete taxonomic description plus a wealth of supplementary information.

The plant of *Shuaria* forms a small tree about 4m (13 feet) tall with a 6cm (2.5 inch) trunk. The white flowers are quite small, about 6mm (1/4 inch) long. This combination of characters means that it is unlikely to ever appear at a garden store, but I am sure that the more adventurous members of our Society will be keen to try it.

The illustration of *Shuaria ecuadorica* flowers reminds me of *Besleria lutea* from Jamaica, and I would not be surprised to find that they use similar pollinators. The fruit is completely different, however. The Jamaican species has a colorful display fruit, while the new Ecuadorian species has a dry capsular fruit.

One interesting feature of the new species of *Shuaria* is that the usual opposite leaves are sometimes interrupted by a stretch of alternate leaves.

If it weren't for DNA evidence, the specimens of this plant might still be residing in the "mystery plants cabinet" at various herbaria. Originally it wasn't even clear what family of plants to place it in. According to the DNA evidence, the new species is indeed a gesneriad and is related to the genera *Anetanthus* and *Tylopsacas*, neither of which is remotely tree-like but do have dry capsular fruit.

• New World Origins of Southwest Pacific Gesneriaceae: Multiple Movements Across and Within the South Pacific. Woo, V., Funke, M. M., Smith, J. F., Lockhart, P. J., & Garnock-Jones, P. J. International Journal of Plant Science 172(3): 434–457. 2011.

Plants classified in the tribe *Coronanthereae* are found in the southwest Pacific and in southern South America. These plants have equal cotyledons like New World gesneriads, but have superior ovaries (ovaries inside the flower rather than just below it) like Old World gesneriads. Since most gesneriad groups are only found in one hemisphere, and because of the mix of "New World" and "Old World" characteristics,

it has been suggested that this group might be the remnants of an ancient ancestral lineage.

The authors of this paper use modern genetic engineering techniques to investigate this idea. They find that these plants are not an ancient relict group, but should be considered as part of the New World gesneriads. In particular, plants in the *Coronanthereae* tribe seem to be more closely related to plants in the genera *Napeanthus*, *Besleria*, *Cremosperma*, and *Gasteranthus*, less closely related to other New World genera, and much less closely related to Old World genera.

Within the *Coronanthereae* tribe, the existing genera seem to be well-supported by molecular evidence. One intriguing development within the tribe is that the Australian genus *Fieldia* seems to be closer to the genera *Asteranthera*, *Sarmienta*, and *Mitraria* (found in Chile and Argentina) than to the other southwest Pacific genera in the tribe.

The authors use genetic evidence to find that the members of this tribe apparently originally developed in South America, and that their presence in the southwest Pacific may have resulted from two separate dispersal events. One event would have brought the ancestor of *Fieldia* from South America to Australia. A second event would have brought an ancestor of the other genera in the tribe from South America to New Caledonia, with further dispersal from there. Exactly how these plants could have crossed the long inhospitable ocean distances involved remains unclear.

The paper includes a nice color photograph of wild *Sarmienta scandens* climbing vertically up the side of a moss-covered tree trunk. This is in line with our experience in cultivation; The plant would much rather climb the barren aluminum structural ribs of the greenhouse than rest supinely on inviting soil mix.

Many of our readers have met Vincent Woo at the annual conventions; This paper is based on a chapter from his thesis, for which he is to be congratulated.

• Novae Gesneriaceae Neotropicarum XVI: Cremosperma anisophyllum, a new species of Gesneriaceae from the Chocó region of northern Ecuador and southern Colombia. Clark, J.L. & Skog, L.E. Brittonia 63(1): 133–138. 2011.

This paper describes a new species of *Cremosperma* from the Chocó region on the western Andean slopes of northern Ecuador and southern Colombia.

Cremosperma is a genus of herbaceous plants, currently containing 26 species. The plants grow terrestrially or on rocks. This particular species grows in the transition zone between lowland wet forest and mountain wet forest. It seems to be locally common within a restricted area.

The new species is distinguished from other plants in the genus by having the combination of strongly anisophyllous leaves and dorsiventral shoots. "Dorsiventral shoot" refers to a stem-and-leaf structure of a flat "two-dimensional" appearance, like a fern frond. The general vegetative appearance is like some of the *Dalbergaria*-type Columneas, with leaves spreading to the sides from stems that are raised somewhat above the horizontal. (This structure is unusual in *Cremosperma*.) As the name of this new species suggests, the leaves within a pair are of unequal size, again similar to *Columnea*.

As with other members of the genus, the flowers are clustered at the end of a peduncle. In this species the entire floral structure has parts that are measured in millimeters, not centimeters, so the horticultural potential is limited. A magnifying glass will be useful for seeing any detail of the small white flowers.



Flower Show Trifecta: PFS Horticultural Classes

Exhibitors Compete in Three Shows in Seven Days

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Preparation, organization, and a strategic plan of action are required for any exhibitor entering more than a few plants in the competitive horticulture classes at the Philadelphia International Flower Show (PFS). For a start, exhibitors must plan and prep plants and related paperwork for three separate judging days. Entry days start – and end – early. Exhibitors must enter plants beginning at 7 a.m. and depart by 9:30 a.m. For those with many plants, getting helpers to enter their plants at the dozen or so passing stations sprinkled throughout the exhibit space is a necessity.

Produced by the Pennsylvania Horticultural Society (PHS), a nonprofit membership organization founded in 1827, PFS is the largest indoor flower show in the world and draws visitors from all corners of the globe. All for a good cause: Proceeds from the show benefit PHS urban greening programs in Pennsylvania, New Jersey, and Delaware.

The centerpiece of the show is its grandiose displays, all of which follow the yearly theme, which, for the 2011 show was "Springtime in Paris." In addition, floral and landscape design professionals, garden clubs, horticultural societies, and individuals compete in a multitude of competitive classes. Among these are an array of horticulture classes for amateur growers. It is here where the Liberty Bell Chapter of The Gesneriad Society plays to an audience of thousands.

Competing against amateurs who grow on windowsills as well as those with large greenhouses and dozens of gardeners, Liberty Bell was runner-up for the PHS Award honoring the organization with the greatest number of points. (Exhibitors identifying Liberty Bell accumulate points for each plant entered plus points for ribbons and awards. Liberty Bell chapter members Lynn Cook and Troy Ray took home the PHS Grand Sweepstakes Trophy for the individual with the highest number of points in horticulture and artistic competitive classes.)

Liberty Bell uses the PFS venue to expand awareness of the family of gesneriads and raise visibility of the group. In addition to providing input on potential challenge plants to PHS, it encourages member entries, supports 12 rosette awards, and ensures three teams of certified Gesneriad Society judges to award four rosettes on each of the three judging days. Liberty Bell is grateful to the nine Gesneriad Society judges who traveled from Northern New Jersey, Delaware, New York, Ohio, and California to participate in the show this year – all on their own dimes.

The Gesneriad Society judging teams are challenged – perhaps most of all in finding and comparing plants that are physically separated. With only five classes devoted to gesneriads each day of entry, gesneriads flowering and those grown for foliage in standard and miniature sizes plus African violets, most exhibitors enter plants in other classes, of which there are many. For example, gesneriads might compete in any of a number of flowering and

non-flowering classes for epiphytic plants, plants grown in the house, plants native to South America, plants in terrariums, miniature plants, etc.

Star at the show for a number of years, *Sinningia leucotricha* nearly always won a blue and a rosette – and usually for exhibitor Ray Rogers. But the plant has grown in popularity and there are more entries. To address this, PHS added a class for it on one of the judging days this year. There were 15 entries in that class as well as specimens in other classes – unless specifically excluded, it could be in any number of classes. Ray Rogers did take a rosette this year, but so did Diane Wister for a plant more than 20 years old.

In total, 270 gesneriads were displayed – an average of 90 for each of the three display periods. Of these, the judges selected four of the best (two flowering and two grown for foliage) for The Gesneriad Society Liberty Bell Chapter Rosette. The judging teams' decisions were consistent. Sinningia piresiana was awarded a rosette for blooming gesneriad on each of the three judging days and Columnea hirta 'Light Prince' and Pearcea hypocyrtiflora were each awarded the rosette for foliage on two of the three days. In all, Liberty Bell members took home nine of the twelve rosettes awarded at the show.

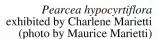
Several judges pointed to two disappointments. One was the scarcity of good "foliage" plants. Using Gesneriad Society rules, judges could not consider for rosettes several plants that had open flowers above nice foliage. The other was the low number of entries and the less than stellar quality of many of the African violets. The beautiful specimens seen at AVSA and Gesneriad Society shows just aren't usually at the PFS. The most likely reasons include the PHS requirement for terracotta or terracotta-colored pots. Another is that



Sinningia piresiana exhibited by Charlene Marietti awarded Liberty Bell Rosettes (photo by Maurice Marietti)



Columnea hirta 'Light Prince' exhibited by Nancy Bruhns (photo by Maurice Marietti)





the exhibit hall is cool and dry – generally hard on the plants. And last but not least, few African violet growers even enter the show. This is clearly a potential winning category for growers of specimen plants.

Saturday, March 5 Show Day

Carol Callaghan (Wilmington, Delaware) has judged gesneriads for The Gesneriad Society Liberty Bell Chapter awards for the past three years at the PFS. A long-time visitor to the show, she also has judged horticulture categories for the last eight years for PHS. "As far as gesneriads go, the number of entries has grown every year, and so has the quality," she said. "I have never seen so many wonderful plants of *Sinningia leucotricha* in one place! There were also other Sinningias, Chiritas, Columneas, Streps, Nautilocalyx, and others too numerous to mention. I felt it was a very nice representation of gesneriads for the general public – and a wonderful way to showcase our favorite plants."

The other two members of Carol's team, Leonard Re (Fountain Valley, California) and Paul Kroll (East Aurora, New York) were PFS first-timers – and a bit stymied at the process. Leonard liked what he saw of the gesneriads and remarked on the helpfulness of the PFS-assigned clerk and Carol's famil-

iarity with the show and its idiosyncrasies, including descriptions of the selections from the different classes (of which there were many).

Paul was impressed and said, "What a beautifully spectacular show! I had a wonderful time judging the gesneriads at the Philadelphia Flower Show! It was unlike any judging I have done previously, and most enjoyable, hunting all over for the two possible best blooming and the best grown for foliage plants." Adding insight into the final selection, he reported, "Competing for best blooming gesneriad were several entries of Sinningia leucotricha, Gesneria cuniefolia, Sinningia macrostachya, Sinningia piresiana, and a spectacular Aeschynanthus gracilis – all were contenders. For foliage: a Pearcea hypocyrtiflora and Columnea hirta 'Light Prince' came out on top, but there were others that were considered as well."

Tuesday, March 8 Show Day

Day Two judging starts with a clean slate. All plants from Day One have been removed, and although exhibitors may re-enter the same plants, the class is often comprised of a new group of entries as tired plants leave and new ones come in. All Day Two Gesneriad Society judges had PFS experience under their belts.

"This year there were many fine flowering gesneriads, so that choice was not easy," said Carolyn Ripps (Hartsdale, New York). "The most popular plant for exhibition was clearly *Sinningia leucotricha*, which was entered in a number of classes and shown in varying stages of maturity from tubers with emerging shoots to huge specimens beginning to drop spent flowers. Toward the end, I was developing *leucotricha* overload." Also noteworthy for Carolyn were several other gorgeous large Sinningias and a couple of lovely bubble bowls of micromini Sinningias.

According to Gussie Farrice (Staten Island, New York), the team's strategy was to go through the whole show, then make a second pass to finalize plants to be awarded. She cited a good showing of Streptocarpus and Sinningias and an abundant number of entries of *Sinningia leucotricha* plus Chiritas, Episcias, and Nematanthus.



Challenge class for Streptocarpus 'Purple Martin'

Mel Grice (Englewood, Ohio) said, "I was glad to see the PFS add a challenge class for growing a gesneriad – *Streptocarpus* 'Purple Martin'. He added, "Such a large group of gesneriads really got the public's attention and the numerous specimens of *Sinningia leucotricha* (both large and small) attracted a great deal of attention." He witnessed many people taking the time to write down the name of this plant for future reference and growing.

Friday, March 11 Show Day

Day Three competitive classes again start from scratch. And again, there were lots of plants to judge. Jill Fischer (Berkeley Heights, New Jersey) said, "There were so many gesneriads to judge that we were challenged to select the four best."

This Gesneriad Society judging team made quite a few corrections on genera. Karyn Cichocki (Lafayette, New Jersey), recalled a Kohleria labeled as Nematanthus and two non-blooming Streptocarpus labeled with unknown plant names. "The overall quality of the gesneriads was very good and we had a good deliberation to come up with our two choices for the blooming awards," noted Karyn, "but the non-blooming plants were a bit weak in terms of ornamental value."

MaryLou Robbins (Boonton Township, New Jersey) echoes the experience of other first-time PFS judges. "I've judged gesneriads a few other times at gesneriad shows, but this was a completely new experience for me. The only way I can describe it was that it was something like a scavenger hunt (to quote our chair). We walked up and down the aisles of plants being judged to find the gesneriads to judge. Not only did we have no trouble finding our gesneriads, but we had a chance to see all the other wonderful plants being shown. And, I have to say, our [PFS] clerk, Leslie Miller, was a wonderful addition to our team. She was very interested in learning what we were doing as well as being interested in the plants themselves. All in all it was an experience I will treasure."





Charlene Marietti and Stephen Maciejewski (above) grooming entries and Russell Strover (facing page) placing entries at the Philadelphia Flower Show



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Gesneriad Register

Judy Becker, Registrar < hybridregistrar@gesneriadsociety.org> Salisbury, Connecticut, USA

The following registrations should be added to the Registered Gesneriads List found in Appendix C of the 1990 Gesneriad Register.

101126	Streptocarpus 'PNW Ink'	Parentage unknown	Peter Wilson
101127		S. 'Ronduls Katrina' × S. 'Ronduls Jezabel'	Ron Clarke
101128	Streptocarpus 'Ronduls Perry'	S. 'Ronduls Katrina' × S. 'Ronduls Jezabel'	Ron Clarke
101129	Streptocarpus 'Ronduls Phyliss'	S. 'Ronduls Katrina' x S. 'Ronduls Jezabel'	Ron Clarke
101130	Streptocarpus 'Reckoner'	S. 'Otome' × S. lilliputana	Jaco Truter
101131	Streptocarpus 'Brooklin's Purple Lace'	S. 'Bristol's Goose Egg' × S. 'The King'	Bruce Williams
101132	Sinningia 'Anthony Wayne'	S. 'Iris Walker' × S. guttata	Brad Walker
101133	Sinningia 'Beulah Mae'	S. eumorpha × S. rupicola	Brad Walker
101134	Sinningia 'Booges' Glory'	S. eumorpha × S. conspicua	Brad Walker
101135	Sinningia 'Booges' Pink Surprise'	S. eumorpha × S. leucotricha	Brad Walker
101136	Sinningia 'Booges' Spotty One'	S. eumorpha × S. douglasii	Brad Walker
101137	Sinningia 'Ma Bessie'	S. eumorpha × [S. leucotricha × S. reitzii]	Brad Walker
101138	Streptocarpus 'Marnie Frances'	S. 'Midnight Flame' × S. 'Texas Sunset'	Jacqueline Crawford
101139	Chirita 'First Time'	C. sinensis latifolia 'Dwarf' × C. longgangensis	M.Watler/V.Woo
101140	Sinningia 'Ozark Fireworks'	S. 'Martha Lemke' \times [S. {('Scoundrel' \times self)	
		× 'Laura') × self}	David Harris
101141	Sinningia 'Ozark Twin Trumpets'	S. 'Chippewa Grace' \times [S. {('Scoundrel' \times self)	
		\times 'Laura') \times self}	David Harris
101142	! Sinningia 'Arkansas Empress'	S. insularis × S. conspicua	Jon Lindstrom
101143	Sinningia 'Romanza'	S. $eumorpha \times S$. $bullata$	Michael Kartuz
101144	Petrocosmea 'Helena'	P. menglingensis × P. nervosa	Jeff Foederer
101145	Streptocarpus 'Butterfly Effect'	S. 'Bristol's Blackbird' × S. 'Iona'	Gunilla Ridderberg
101146	Streptocarpus 'Isis'	S. 'Bristol's Blackbird' × S. 'Iona'	Gunilla Ridderberg
101147	Streptocarpus 'Teo'	S. 'Blue Mars' × S. 'Silvia'	Gunilla Ridderberg
101148	Sinningia 'Rebecca Margarita'	S. 'Iris Walker' × S. 'Cherry Delight'	Brad Walker
101149	Sinningia 'Toney Dale'	S. 'Iris Walker' × S. 'Cherry Delight'	Brad Walker

Streptocarpus 'PNW Ink', 2010, IR101126, Peter N. Wilson, UK. Parentage unknown. Planted 2005 and first flowered 2006. Reproducible only vegetatively. Small, compact rosette. Leaves green, 4.5 in. long × 1.75 in. wide, oblong with crenate margin, rounded tip and cuneate base. Calyx fused, green, 1/8 in. long, 6 to 8 flowers per peduncle. Corolla salverform, 1 in. long × 1 in. wide, deep ink blue with purple veins on lower lobes, white throat. Flowers face upward and bloom over a long period.

Streptocarpus 'Ronduls Pacquesa', 2010, IR101127, Ron Clarke, UK. (S. 'Ronduls Katrina' \times S. 'Ronduls Jezabel'). Cross made June 2006, planted Sept. 2006, and first flowered May 2007. Fertile but reproducible only vegetatively. Medium to large well-rounded rosette. Leaves bullate, light green, averaging 28 cm long \times 8 cm wide, elliptic with crenate margin, acute tip and cuneate base. Calyx split, green, 7 mm long. Up to 8 flowers per peduncle. Corolla salverform, 5 cm long \times 5.5 cm wide, tube white outside, mauve stripes, inner tube white with broken lines of deep violet extending outwards to join veins on lower lobes, corolla face dark violet with darker veining on top two lobes, lighter towards throat.

Streptocarpus 'Ronduls Perry', 2010, IR101128, Ron Clarke, UK. (S. 'Ronduls Katrina' × S. 'Ronduls Jezabel'). Cross made June 2006, planted Sept. 2006, and first flowered May 2007. Fertile but reproducible only vegetatively. Medium to large well-rounded rosette. Leaves bullate, medium green, averaging 28 cm long × 10 cm wide, elliptic with crenate margin, acute tip and cuneate base. Calyx split, green-brown, 8 mm long. 1 to 5 flowers per peduncle. Corolla salverform, 7.5 cm long × 7.5 cm wide, outside of tube white, striped violet, merging together on lobes, inner tube white with broken dark lines, bottom yellow extending onto lower lobes with broken dark lines coming from throat, corolla face shades of violet, slightly lighter on the top two lobes, heavily veined dark violet on bottom lobes with a mesh effect around edges of all lobes.

Streptocarpus 'Ronduls Phyliss', 2010, IR101129, Ron Clarke, UK. (S. 'Ronduls Katrina' \times S. 'Ronduls Jezabel'). Cross made June 2006, planted Sept. 2006, and first flowered May 2007. Fertile but reproducible only vegetatively. Medium to large nicely balanced rosette. Leaves bullate, medium green, averaging 29 cm long \times 10 cm wide, elliptic with crenate margin, acute tip, and cuneate base. Calyx split, green, 1 cm long. Up to 9 flowers per peduncle. Corolla salverform, 6 cm long \times 6.5 cm wide, outer tube white at base merging to ultra marine blue on lobes, inside throat white, tinged yellow, corolla face ultra-marine blue, slightly darker veins, 4 spotted thin stripes on top lobes, 3 on each of bottom lobes.

Streptocarpus 'Reckoner', 2010, IR101130, Jaco Truter, S. Africa. (S. 'Otome' \times S. lilliputana). Cross made May 3, 2007, planted Oct. 3, 2007, and first flowered Nov. 10, 2009. Fertile but reproducible only vegetatively. Rosette. Leaves dark green, lower surface with dark reddish veining, 180 mm long \times 60 mm wide, elliptic with serrate margin, acute tip, and cuneate base. Calyx split, green, 5 mm long. Pedicel 15.5 cm with 6 flowers per peduncle. Corolla salverform, 6 cm long \times 4.2 cm wide, blue-violet and white giving a feathered look. Received a Blue Ribbon by Dale Martens at Quad Cities AVS Show, March 26, 2010.

Streptocarpus 'Brooklin's Purple Lace', 2010, IR101131, Bruce Williams, CAN. (S. 'Bristol's Goose Egg' × S. 'The King'). Cross made Jan. 5, 2008, planted Mar. 21, 2008. Reproducible only vegetatively. Rosette. Leaves bullate, medium green, 12 in. long × 5 in. wide, oblong with entire margin, rounded tip and cuneate base. Calyx green, 0.25 in. long. Pedicel 5-6 in. tall with 3-5 flowers per peduncle. Corolla salverform, 3 in. long × 3 in. wide, white with purple webbing on lower three petals, yellow in throat. Blue Ribbon at the Lakeshore African Violet Show (April 2009), Blue Ribbon at the Toronto Gesneriad Society Show (March 2010), and Blue Ribbon at the African Violet Society of Canada Convention Show (May 2010).

Sinningia 'Anthony Wayne', 2010, IR101132, Brad Walker, TN. (S. 'Iris Walker' \times S. guttata). Cross made Aug. 2, 2007, planted Jan. 12, 2008, and first flowered July 14, 2008. Fertile but reproducible only vegetatively. Erect habit. Leaves green, 2.25 in. long \times 2 in. wide, ovate with crenate margin, acute tip, and cordate base. Calyx green, leafy. Corolla salverform, 5 cm long \times 3 cm wide, white with raspberry stripes in throat.

Sinningia 'Beulah Mae', 2010, IR101133, Brad Walker, TN. (S. eumorpha \times S. rupicola). Cross made Sept. 17, 2007, planted Nov. 12, 2008, and first flowered June 30, 2009. Foliage and height similar to S. rupicola. Leaves green, 4.5 in. long \times 3 in. wide with 1.5 in. petiole, elliptic with crenate margin, acute tip, and cordate base. Calyx split, green. Pedicel 3 in. long, 1-2 flowers per leaf axil. Corolla salverform, 2 in. long \times 1.25 in. wide, pink with pink stripes in white throat.

Sinningia 'Booges' Glory', 2010, IR101134, Brad Walker, TN. (S. eumorpha \times S. conspicua). Cross made Aug. 19, 2007, planted Jan. 12, 2008, and first flowered July 27, 2008. Fertile but reproducible only vegetatively. Erect, tall-growing plant. Leaves green with red in midrib, 6.75 in. long \times 5 in. wide with 3 in. petiole, ovate with serrate margin, acute tip, and cordate base. Calyx green, split. Pedicel 3.5 in. long with 2 flowers per leaf axil. Corolla salverform, 2.25 in. long \times 1.5 in. wide, white with purple stripes in yellow throat. As easy to grow as S. eumorpha but has scented flowers with lavender only in throat. It has more flowers than S. conspicua.

Sinningia 'Booges' Pink Surprise', 2010, IR101135, Brad Walker, TN. (S. eumorpha \times S. leucotricha). Cross made June 4, 2007, planted July 1, 2007, and first flowered Aug. 1, 2008. Fertile but reproducible only vegetatively. Large plant with erect growth. Leaves green, 5 in. long \times 5 in. wide, elliptic with create margin, acute tip, and cordate base. Calyx green, split. Pedicel 2 in. long with 1-2 flowers per leaf axil. Corolla salverform, 2 in. long, medium pink flowers, stark white throat with pink spots.

Sinningia 'Booges' Spotty One', 2010, IR101136, Brad Walker, TN. (S. eumorpha \times S. douglasii). Cross made May 18, 2007, planted July 18, 2007, and first flowered Dec. 30, 2008. Fertile but reproducible only vegetatively. Medium sized, erect growth. Leaves green, 5 in. long \times 3.5 in. wide with 2 in. petiole, elliptic with serrate margin, acute tip, and cordate base. Calyx green, split. Corolla salverform, 2.25 in. long \times 2 in. wide, deep lavender-pink with heavy spots and stripes in throat.

Sinningia 'Ma Bessie', 2010, IR101137, Brad Walker, TN. (S. eumorpha × [S. leucotricha × S. reitzii]). Cross made Aug. 8, 2005, planted Sept. 18, 2005 and first flowered Apr. 23, 2006. Fertile but reproducible only vegetatively. Large plant, upright growth. Leaves green, 3 in. long × 2.5 in. wide, elliptic with serrate margin, acute tip, and cordate base. Calyx green, split. 2-4 flowers per leaf axil. Corolla salverform, 2 in. long × 0.75 in. wide, deep wine-red with white throat, dark stripes. Occasional peloric flowers. Blue Ribbon, Tennessee Gesneriad Society Show, 2009.

Streptocarpus 'Marnie Frances', 2010, IR101138, Jacqueline Crawford, GB. (S. 'Midnight Flame' × S. 'Texas Sunset'). Cross made May, 2009, planted Aug. 2009, and first flowered May, 2010. Fertile but reproducible only vegetatively. Rosette. Leaves bullate, medium green, 8 in. long × 3 in. wide, lanceolate with crenate margin, acute tip, and cuneate base. Calyx green, split, 0.25 in. long. Corolla salverform, 1.5 in. long × 1.25 in. wide, white tube, upper lobes medium lilac, lower lobes deep lilac, throat white with very deep red lines extending onto lower lobes, partial deep purple tracery on lower lobes.

Chirita 'First Time', 2010, IR101139, Monte Watler/Vincent Woo, CAN. (C. sinensis latifolia 'Dwarf' × C. longgangensis). Cross made about 2004, planting and first flowering dates not given. Reproducible only vegetatively. Compact, very symmetrical rosette, leaves in whorls of 3. Leaves hairy, green heavily marked with silver along veins, 8-10 cm long × 4 cm wide with 2 cm petiole, elliptic with serrate margin, acute tip, and cuneate base. Calyx split, pale green, 0.5 cm long. Pedicel 9 cm tall with 4-8 flowers per peduncle. Corolla salverform, 3.5 cm long × 2 cm wide, tube exterior pale violet, darker purple stripes and two yellow streaks in throat, resembling C. longgangensis parent.

Sinningia 'Ozark Fireworks', 2010, IR101140, David Harris, MO. (S. 'Martha Lemke' × [S.{('Scoundrel' × self) × 'Laura') × self}). Cross made Nov. 10, 2003, planted Dec. 26, 2003, and first flowered June 24, 2004. Fertile but reproducible only vegetatively. Miniature rosette. Leaves dark green with red back, 2.375 in. × 2 in. wide with 0.75 in. petiole, ovate with serrate margin, acute tip, and cordate base. Calyx split, medium green. Pedicel 2.125 in. long with up to 3 flowers per leaf axil when mature. Corolla salverform, 1.5625 in. long × 1.125 in. wide, upper two lobes pink, lower three white with burgundy dots extending from yellow throat. Occasional flowers white with burgundy dots on all lobes. Best New Gesneriad, Heart of America Gesneriad Society 2005 Show. Best Other Gesneriad, Commercial Section, 2007 AVSA Convention.

Sinningia 'Ozark Twin Trumpets', 2010, IR101141, David Harris, MO. (S. 'Chippewa Grace' \times [S. {('Scoundrel' \times self) \times 'Laura') \times self}). Cross made Nov. 10, 2003, planted Dec. 12, 2003 and first flowered June 10, 2004. Fertile but reproducible only vegetatively. Miniature rosette. Leaves medium to dark green with red veins, 2.25 in. long \times 2 in. wide with 1 in. petiole, ovate with serrate margin, acute tip and cordate base. Calyx green, split. Pedicel 2.125 in. long with one flower per leaf axil. Corolla single to double salverform, 1.5625 in. long \times 0.9395 in. wide, coral with red shading and lines in throat. First Place 2006 Missouri Valley Council Fall Show. First Place 2007 AVSA Convention Show.

Sinningia 'Arkansas Empress', 2010, IR101142, Jon Lindstrom, AR. (S. insularis \times S. conspicua). Cross made Sept. 16, 2006, planted Oct. 23, 2006, and first flowered Aug. 23, 2007. Sterile and reproducible only vegetatively. Tuberous, upright plant, typically with ternate leaves (three per node). Leaves hairy, dark green (RHS N137B), stems and petiole red purple (RHS 59A), 136.5 mm long \times 112.3 mm wide with 50.7 mm petiole, ovate with margin between serrate and crenate, short acuminate tip, and cordate base. Calyx split, green, 13.82 mm long, pedicel 65.6 mm (flowers at top of plant have a shorter pedicel) with 6-8 flowers in a cyme. Corolla salverform, 51.2 mm long \times 26.3 mm wide, salmon-red exterior (RHS 41D), pink red interior (RHS 55B), slightly fragrant (citrus-lemon). Upper four or five nodes each bear cymose inflorescences. The ovate leaves with red-purple petioles and red-purple stems are also distinctive.

Sinningia 'Romanza', 2010, IR101143, Michael Kartuz, CA. (S. eumorpha \times S. bullata). Cross made Aug. 2008, planted Oct. 2009, and first flowered June 2010. All seedlings seem identical. Compact, upright rosette. Leaves bullate, dark green with dark veins, dusky red on lower surface, 4-6 in. long \times 3 in. wide with 2 in. petiole, ovate with crenate margin, acute tip, and cuneate base. Calyx split, green, 0.375 in. long, pedicel 3-4 in. long with 1-4 flowers per leaf axil. Corolla salverform, 1.25 in. long \times 1.25 in. wide, pink with red limb, thin purple lines and dots in throat and corolla. Easy to grow and flower, light and temperature requirements same as parents, hardy to 32°F. Available from Kartuz Greenhouses.

Petrocosmea 'Helena', 2010, IR101144, Jeff Foederer, Netherlands. (P. menglingensis × P. nervosa). Cross made Mar. 10, 2008, planted June 3, 2009, and first flowered Aug. 2009 with only 1 flower. Reproducible vegetatively. Basal rosette, 18 cm diameter. Leaves very hairy, medium green, 7 cm long with stem, 4 cm wide, ovate with crenate margin, rounded tip, and cuneate base. Calyx split, green, 2.2-2.5 cm long. Pedicels 2.2-2.5 cm long with up to 4 flowers. Corollas variable, some with 6 petals, peloric, (radially symmetrical), 1.7 cm long × 2 cm wide, outside lilac blue, inside lilac with blue and white, faint yellow in throat. Plants resemble P. nervosa parent.

Streptocarpus 'Butterfly Effect', 2010, IR101145, Gunilla Ridderberg, Sweden. (S. 'Bristol's Blackbird' \times S. 'Iona'). Cross made July 1, 2007, planted Sept. 3, 2007, and first flowered Apr. 14, 2008. Fertile but reproducible only vegetatively. Compact, tidy rosette. Leaves medium green, 7 in. long \times 1.5 in. wide, linear with crenate margin, acute tip and cuneate base. 5-6 flowers per very tall, upright, and rigid peduncle. Corolla salverform, 1.5 in. wide, soft lilac at top, bottom lobes a little darker lilac with darker veins. Petals are pointed and upward facing, "flying like butterflies above the plant."

Streptocarpus 'Isis', 2010, IR101146, Gunilla Ridderberg, Sweden. (S. 'Bristol's Blackbird' \times S. 'Iona'). Cross made July 1, 2007, planted Sept. 3, 2007, and first flowered July 12, 2008. Fertile but reproducible only vegetatively. Medium sized rosette. Leaves medium green, 7 in. long \times 2 in. wide, oblong with crenate margin, acute tip, and cuneate base. 3-6 flowers per peduncle. Corolla salverform, 2 in. wide, dark purple, sprinkled with many white dots.

Streptocarpus 'Teo', 2010, IR101147, Gunilla Ridderberg, Sweden. (S. 'Blue Mars' × S. 'Silvia'). Cross made Sept. 5, 2008, planted Jan. 30, 2009, and first flowered Sept. 15, 2009. Fertile but reproducible only vegetatively. Large growing rosette. Leaves medium green, 9-10 in. long × 2.5 in. wide, oblong with crenate margin, acute tip, and cuneate base. 4-5 flowers per peduncle. Corolla salverform, frilly, 2 in. wide, purple upper lobes, creamy lower ones with dark purple in throat.

Sinningia 'Rebecca Margarita', 2010, IR101148, Brad Walker, TN. (S. 'Iris Walker' \times S. 'Cherry Delight'). Cross made Aug. 8, 2009, planted Oct. 20, 2009, and first flowered Aug. 27, 2010. Fertile but reproducible only vegetatively. Tuberous, compact growth, loose habit. Leaves green, 3.5 in. long \times 2 in. wide with 1.5 in. petiole, oblong with crenate margin, rounded tip, and cordate base. Calyx pink, 1.5 in. long. 1 flower per leaf axil. Corolla pendant, salverform, fully double, 1.5 in. long \times 1.25 in. wide, pink with lavender stripes in throat.

Sinningia 'Toney Dale', 2010, IR101149, Brad Walker, TN. (S. 'Iris Walker' \times S. 'Cherry Delight'). Cross made Aug. 8, 2009, planted Oct. 20, 2009, and first flowered Aug. 27, 2010. Fertile but reproducible only vegetatively. Compact tuberous plant. Leaves green, 2 in. $\log \times 1$ in. wide, with 0.75 in. petiole, oblong, with serrate margin, acute tip, and cordate base. Calyx green, leafy. Corolla salverform, 1.75 in. $\log \times 1$ in. wide, orange with white throat, some orange spots at base.



Gesneriad Society Chapter Shows - Best in Show Winners



Sinningia 'Magic Moment' exhibited by Arleen Dewell, Toronto Chapter Show

Streptocarpus
'Heartland's
Peacock' exhibited
by Dale Martens,
Northern Illinois
Chapter Show
(photo by
David Harley)





Sinningia bullata exhibited by Ben Paternoster, Long Island Chapter Show (photo by Paul Susi)



Exhibit "Growing Gesneriads in the Sunshine State" presented by the Tampa Bay Gesneriad Society awarded at the Florida State Fair (February 2011)

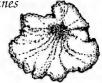


Gesneriad Exhibit by the New England Chapter at the New England Flower Show (March 2011)

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Sinningia 'Beata' (leucotricha × leopoldii)
Streptocarpus 'Keri's Purple' × self

Mail orders for hybrid seed to: Gussie Farrice, 121 Nelson Avenue, Staten Island, NY 10308

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Donations mailed from anywhere should be sent to: **Karyn Cichocki**

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1840 illustration of "Gloxinias" from Flora Universalis (Germany), Vol. 5, Gesneriaceae, showing the type species of the genus *Gloxinia*, *G. perennis* (lower left), with the currently named *Sinningia speciosa* var. *rubra*, then named *Gloxinia rubra* (lower right), and the *Sinningia* hybrid *S.* 'Youngeana', then named *Gloxinia* 'Youngeana' (top).

Finding John Fyfe

Dave Zaitlin <dzait2@uky.edu> Lexington, Kentucky, USA

John Fyfe, the father of the modern Florist Gloxinia, is an enigmatic figure who was known to me for many years as nothing more than a name attached to his hybrid, *Gloxinia Fyfiana*. Anybody who might have known him has long since passed away, and for all I knew, the story of how he raised the first peloric "gloxinia" hybrid might be apocryphal. But he is tightly connected to the modern "gloxinia:" We have it in John Fyfe's own words.

It was the discovery of Mr. Fyfe's article in *The Gardener's Monthly and Horticulturist* of December, 1879 that compelled me to dig deeper into his background. Because the article is on the cultivation of "gloxinias," and because it recounts the history of the hybrid *Gloxinia Fyfiana*, this can only be the John Fyfe who was mentioned in so many mid-19th century plant journals and magazines. Fyfe himself says he was in charge of a large collection of stove and greenhouse plants on the estate of Thomas D. Douglas – a fact that fits with the early narrative. Douglas was a prominent citizen in Rothesay, the county town on the Isle of Bute, which is in the Firth of Clyde just off the coast of southwestern Scotland. Part of the Buteshire constituency during Fyfe's lifetime, Bute is now located within the council area of Argyll and Bute (formerly the County of Bute). It was through Internet-based research of census, birth, death, and immigration records using <Ancestry.com>, <freecen.rootsweb.com>, and <familysearch.org> that I have pieced together a genealogical timeline for John Fyfe:

- 1. John Fyfe and Abigail Wanless were married on September 8, 1840 in Edinburgh, with the groom's surname spelled 'Fyffe' in the record. The groom's parents were not named, but Abigail's father was given as John Wanless. Records from the Scottish Census of 1841, 1851, 1861, and 1871 reveal that the family moved frequently and must have experienced considerable personal tragedy. In 1841, John and Abigail were living in a house on Bridge Street in Rothesay, and he was employed as a gardener (on the Duncan estate in Rothesay). The household included two unrelated young men; Thomas Hally (20), also a gardener, and James Sinclair (15).
- 2. It is unclear when Fyfe's employment with Thomas Duncan ended, because the 1851 census indicates that the couple was then living at Gardeners House Drumsheugh, in the village of St. Cuthberts (Edinburgh parish). In the household were three children born in Rothesay: Mary Ann (10), John (8), and Agnes (6). Also listed were Henrietta (misspelled 'Henritta'), who was 4 years old and born in Turriff, Aberdeenshire, and Jemima, a one-year old born in Cupar, Fifeshire. Mary Ann and Jemima probably didn't survive childhood, because they do not show up in the later censuses. John's age is given as 40, Abigail's as 33, and his occupation is "gardener," although there is no information about where he was employed. Thomas Douglas was listed as being a merchant in Rothesay, age 60 in the 1841 census, in a household that included five servants. By 1851 he had moved his household to a farm in the village of Dunlop in Ayrshire, southwest of Glasgow, about 30 miles from Bute. The Douglas farm employed quite a few people, but there were no Fyfes among them. An advertisement

in *Oliver and Boyd's Scottish Tourist* (20th edition, 1860) reveals that the former Douglas estate on Bute was "altered and repaired" by a Mr. James Attwood and turned into the Queen's Hotel, a first-class hotel for tourists and families.

- 3. The Scottish censuses of 1861 and 1871 give a more complete picture of the Fyfe family. John was born "about 1811" in the village of Forteviot, Perthshire. Abigail was born on April 24, 1817 (christened May 8, 1817) in Kilmany, Fifeshire. In 1861 the family lived in Rutherglen, Lanarkshire, just south of Glasgow. Two of their children, William and Helen, were born there in 1856 and 1859, respectively. In 1871, the Fyfes were living at 27 Springfield Rd. in Glasgow with William and Helen and an older sister, Jane, who was born in Edinburgh in 1851 or 1852. There was another daughter named Robina (or Robena), who was also born in Edinburgh, probably in 1854. Thus, John and Abigail had a total of nine children born between 1841 and 1859; in order of birth their names were Mary Ann, John, Agnes, Henrietta, Jemima, Jane, Robina, William, and Helen. All but Mary Ann and Jemima survived at least into young adulthood.
- 4. From the article John Fyfe wrote in *The Gardener's Monthly and* Horticulturist, we know that he was living in the United States in 1879. The authorship is attributed to "Mr. Fyfe, Mount Auburn, Mass." There is no town named Mount Auburn in Massachusetts, but there is a road and a famous cemetery of that name on the western edge of Cambridge, Mass. The 1880 U.S. Census has a record for a John Fyfe, age 70, residing as a boarder in the house of Richard P. Walsh on Fresh Pond Lane in Cambridge. His occupation is given as "laborer" and he was a widower by this time. This is very probably the right John Fyfe, because his age and marital status fit, as does his birthplace (Scotland). So the question we ask now is this – how and when did he come to America? The website <castlegarden.org> maintains records of immigrant ships that came through the port of New York for the period 1820-1892. Castle Garden (now Castle Clinton National Monument in Battery Park) was this country's first official immigrant processing station that operated from 1855 until 1890, before the opening of Ellis Island. A search of their database revealed that a John Fyfe, occupation given as "gardener, grower" entered the U.S. on April 30, 1873 aboard the ship S.S. Victoria that departed from Glasgow, Scotland. His age is given as 59, but this could have been an error (he was closer to 63). Jane and Helen (ages 20 and 14) are also on the passenger list, although Helen is called Ellen. An expanded search found that John was not the family pioneer, however. Both Henrietta and Robina left Scotland almost three years before their father on the steamship Anglia and arrived in New York on August 29, 1870. Their ages were given as 24 and 16, and their occupations as "gentleman's servant."

The American branch of the Fyfe family was established when Henrietta moved to Holyoke in western Massachusetts shortly after she emigrated from Scotland. The Massachusetts marriage records database from 1695-1910 shows Henrietta marrying David Page (also born in Scotland) on October 1, 1870 in Holyoke, Massachusetts, barely one month after her arrival. According to the 1880 census, Henrietta had six children, ages 2 to 9, but was a widow by that time. Her husband appears to have died on October 9, 1879 at the age of 34 in Holyoke (his occupation was given as "machinist"). Robena (age 26) and Ellen (age 20) also resided in the Page household at this time. There are marriage records in the database of <familysearch.org> for

several of Henrietta's children – John F. (1901), Robena F. (1908), and Genie (1915), but not for Mary, Jane, or Henrietta. Thus, the family can be traced at least one or two more generations toward the present (John's grandchildren and great-grandchildren).

Epilogue

The two Fyfe children Mary Ann and Jemima almost certainly died young, but I could not find any records to verify this. A family in the United Kingdom named Wanless maintains a genealogical website <www.wanless-web.org> that contains a wealth of information. Here we find that Abigail Fyfe (54), wife of John Fyfe (gardener), died on May 17, 1871 at 27 Springfield Rd., Glasgow. This is the reason John was listed as a widower in the 1880 U.S. census, and his wife's death may have influenced his decision to leave Scotland. The Wanless database also gives the names of Abigail's parents as John Wanless (who also died in 1871 at age 87) and Agnes Lister (or Litster). There is even a record for John Wanless' parents, James Wanless and Helen Skeen (or Skeene), who were married in Meigle, Perthshire on Oct. 23, 1773. In America, Jane was the first to die (at age 22), on November 20, 1873 in Holyoke, MA, just six months after her father immigrated. Robina died of tuberculosis at age 26 on October 15, 1880, and Henrietta followed her on March 4, 1884, also in Holyoke.

<Familysearch.org> has one death record for a John Fyfe that is almost certainly the right one. The death was recorded on June 26, 1882 in Holyoke, Massachusetts. Birth year (estimated) is given as 1809, and his age as 73. John's birthplace, as well as that of his unnamed parents, was Scotland. The cause of death was *phthisis pulmonalis*, which is an archaic medical term for the disease we know today as tuberculosis. His occupation is given as "gardener," but it states that he was married. And finally, on October 24, 1936, John Fyfe's great-granddaughter Greta Lydia Page married Leonard Fayette Clark in Contoocook, New Hampshire. From this record we find that her father, John Fyfe Page, was named for his grandfather.

Sinningia speciosa Illustrations

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Table 1. All known illustrations available (April 2011) of *Sinningia speciosa* (wild forms, cultivars and hybrids) as depicted in botanical periodicals from 1815 (*Gloxinia speciosa*) to 1918 (*S. speciosa* 'Maximillian's Ligeria'). The original styles and spellings for the plant names and descriptions have been preserved.

Species Name	Common Name or Description	Year Pub- lished	Author (if known)	Reference
Gloxinia speciosa		1817	Loddiges	3: vol. 1, plate 28
Gloxinia speciosa	Rough-leaved Gloxinia	1817	John Sims	6: vol. 44, plate 1937
Gloxinia speciosa	Rough-leaved Brasil Gloxinia	1817		4: vol. 3, plate 213
Gloxinia caulescens	'Miller's Pernambuco Gloxinia'	1827	John Lindley	4: vol. 13, plate 1127
Gloxinia caulescens		1829-30	Loddiges	3: vol. 16, plate 1566
Gloxinia speciosa var. albiflora	Showy Gloxinia; White- flowered variety	1833	William Jackson Hooker	6: vol. 7 (new series), plate 3206
Sinningia Youngeana	'Dr. Younge's Sinningia' (S. velutina × S. speciosa)	1836-37	Robert Marnock	13: vol. 1: pages 204- 205, plate 14
Gloxinia speciosa	Showy Gloxinia	1838	"G.B." & Benjamin Maund	5: vol. 2, plate 105
Gloxinia maxima	'Largest-Flowered Gloxinia'	1838	Joseph Paxton	20: vol. 5, page 219
Gloxinia speciosa- caulescens	Shewy Caulescent Gloxinia	1839	"G.B." & Benjamin Maund	5: vol. 3, plate 149
Sinningia Youngeana	'Dr. Younge's Sinningia' (S. velutina × S. speciosa)	1840	Joseph Paxton	20: vol. 7, page 51
Gloxinia rubra	Red-Flowered Gloxinia	1840	Joseph Paxton	20: vol. 7, page 271
Gloxinia rubra	Red-flowered Gloxinia	1841	Joseph Harrison	12: vol. 9, page 97
Gloxinia speciosa var. macrophylla, variegata	Rough Gloxinia; large variegated-leaved var.	1842	William Jackson Hooker	6: vol. 15 (new series), plate 3934
Gloxinia speciosa var. Menziesii	Rough-leaved Gloxinia; Mr. Menzies' var.	1842	William Jackson Hooker	6: vol. 15 (new series), plate 3943
Gloxinia rubra, G. maxima, G. speciosa		1842		15: Nov. 1, 1842 (Brit. Florist, vol. 3, 1846)
Gloxinia digitaliflora	Fox-glove-flowered Gloxinia	1843	Joseph Paxton	20: vol. 10, page 193
Gloxinia speciosa (Garden Varieties)	G. magnifica, G. insignis, G. bicolor, G. Cartoni	1844	John Lindley	9: vol. 7 (new series), plate 48
Gloxinia speciosa Seedlings	Cerina, Speciosa superba, Cartonii	1844	Joseph Paxton	20: vol. 11, page 199
Gloxinia rosea alba	G . candida \times G . rubra	1844		15: May 1844 (Brit. Florist, vol. 5, 1846)
Gloxinia Cartonii (with Achimenes Liepmannii)		1845	Joseph Harrison	12: vol. 14, page 145
Gloxina Caulescens Teuchlerii	G. à tige, de Teuchler	1846	Neumann	21: vol. 5 (2nd series), page 301, figure 16
Gloxinia Passinghami	i 'Mr. Passingham's Gloxinia'	1846	Joseph Paxton	20: vol. 12, page 267
Gloxinia Fyfiana	'Mr. Fyfe's Gloxinia'	1847	Joseph Harrison	12: vol. 15, page 49
Gloxinia Teuchleri (hybrida)	Gloxinie de Teuchler	1847	Charles Lemaire & Louis Van Houtte page 220	11: vol. 3, plate 8,
Gloxiniæ speciosæ Varietates: Variétés Diverses de Gloxinie	G. 'Prince Camille de Rohan', G. Teichleri, G. 'comtesse Léopoldine Thun.', G. 'comtesse Inza Thun.', G. 'comtesse Caroline Thun.'	1847	Charles Lemaire	11: vol. 3, plate 6, page 268

Species Name	Common Name or Description	Year Pub- lished	Author (if known)	Reference
Gloxinia Teuchlerii (with Chirita moonii)	$G. \ rubra \times G. \ speciosa$	1848	Joseph Harrison	12: vol. 16, page 193
Gloxinia Fyfiana	Gloxinie de Fyfe (hybride)	1848	Charles Lemaire & Louis Van	11: vol. 4, plate 3, Houtte page 311
Gloxinia Fyfiana		1848	Charles Lemaire	7: page 302, Reprinted from Flore des Serres
Gloxinia Fyfiana (hybrida)	Gloxinie de Fyfe (hybride)	1848	Charles Lemaire	21: vol. 2 (3rd series), page 201, figure 11
Gloxinia caulescens, Lindl.	Gloxinie caulescente	1849	Charles D'Orbigny	8: vol. 3: plate 7
Gloxinia Hybrid Varieties	'Fyfiana', 'Teuchlerii', Albo-Coccinea'	1849	Joseph Paxton	20: vol. 15, page 169
Gloxinia	'Marie van Houtte'	1850-51	Louis Van Houtte	11: vol. 6, plate 610, page 241
Nouvelles Variétés de Gloxinias	'Dr Lindley', 'Reine des Belges', 'Madame Aglae Adanson', 'M.G. Hoogeveen', 'Princesse de Lamballe'	1850-51	Louis Van Houtte	11: vol. 6, plates 574-575, page 133
Gloxinias	'Marie van Houtte', 'Dr. Lindley' 'Mr. Hoogerveen',	,1851	Joseph Harrison	12: vol. 19 (unstated) page 289
Gloxinia Gloxinies Variées	'Henri Decaisne', 'Baronne Chazal'	1852-53	M. Galeotti	18: page 193
Gloxinia Wilsonii	G. albo-sanguinea × unknown	1853	Joseph Harrison	12: vol. 21, page 145
Gloxinia	'Princesse de Prusse'	1854	Charles Lemaire & Ambroise Verschaffelt	19: vol. 1, planche 16
Nouvelles Variétés de Gloxinia	'Don Pedro V', 'Duc D'Oporto'	1854-55	Louis Van Houtte	11: vol. 10, plate 1002, page 91
Gloxinia (Ligeria!) Adamas-Oculata	Gloxinie diamant-ocellé	1855	Charles Lemaire & Ambroise Verschaffelt	19: vol. 2, planche 62
Gesneria Donckelaarii	G. discolor × Gloxinia rubra (= Sinningia gigantifolia × S. speciosa)	1855	Joseph Harrison	12: vol. 23 (unstated), page 49
Gloxinia	Hybrid Gloxinias (unnamed)	1855	Joseph Harrison	12: vol. 23 (unstated), page 97
Gloxinia, erecta	'Flammea', 'Alba auriculata, 'Coronata', 'Queen Victoria'	1855		14: vol. 5 (new series), plate 107, page 353
Gloxinia (Ligeriæ?) Erectæ Hort.	Varietates Hortenses (genus: Orthanthe!)	1856	Charles Lemaire	19: vol. 3, planche 81
Nouvelles Variétés de Gloxinias	'Mademoiselle Brialmont', Général Brialmont', 'Cornélie', 'Marie Legrelle', 'Louis Legrelle'	1856	Edouard Morren	2: vol. 6, page 161
Sinningia Youngiana	Dr. Young's Sinningia (S. velutina × Ligeria speciosa)	1856	Berthold Seemann	6: vol. 12 (3rd series), plate 4954
Sinningia Youngiana (Marnock)		1857	H. Galeotti	17: vol. 1, plate 5, page 49
Gloxinia speciosa var. hybrid erecta	'Madame Picouline', 'Fulgens', 'Helen of Orleans	1857	Joseph Harrison	12: vol. 25 (unstated), page 225
Gesneria Donckelaariana (hybrida)		1859	Edouard Morren	2: vol. 9, page 33
Gloxinia: Variétés Nouvelles	'Lady Grosvenor', 'Ernst Benary', 'Leon de Freminville', 'A. Bonnard', F. Puig', 'Lady Harry Vane', 'Madame Celeste Winans 'Carlo Malenchini', 'Federico Mylius', 'Gouv. De Backer', 'Marquis de St Innocent'		Louis Van Houtte	11: vol. 14 (vol. 4 of 2nd series), plates 1434-1436, pages 113-117

Species Name	Common Name or Description	Year Pub- lished	Author (if known)	Reference
Gloxinia speciosa, vars.	'Lauretta', 'Fairy', 'Beauty', 'Anonyma'	1862	H. Honywood Dombrain	10: vol. 2, plate 115
Ligeria (Dcne.)	Gloxinia 'Mina', Gloxinia 'Souvenir D'Henri', Gloxinia 'Indianella'	1865-67	Louis Van Houtte	11: vol. 16, plates 1699, page 169; page 1703, 175; 1705, page 179
Gloxinia speciosa	'Leon Vanderwee'	1867-68	Louis Van Houtte	11: vol. 17, plate 1768, page 95
Gloxinias (Variétés du G. speciosa)	'Violette neigeuse', 'Ceinture d'Hébé', 'Fleur de Flandre', 'Rose et Hermine', 'Cordon Lavande'		Louis Van Houtte	11: vol. 17, plates 1772-1776, pages 101-109
Gloxinias	'Madame de Smet', 'Prince Teck', 'Rose D'amour'	1867	H.H. Dombrain	10: vol. 6, plate 356
Variétés Nouvelles de Gloxinia	'Don Luis de Portugal', 'M. Decaisne', 'M. Devinck', 'M. Barillet', 'Mme la Ctesse d'Avila' 'M. Brongniart', 'M. Alphand'	1867	EA. Carrière	21: vol. 39, page 432
Gloxinia speciosa Lodd. var. flor. guttat. (Ligeria speciosa Dne.)		1867	Edouard Morren	2: page 289
Semi-Double Gloxinias	'Lady Cremorne', 'John Grey'	1868	H.H. Dombrain	10: vol. 7, plate 404
Gloxinias	'Mons. Vasconciellos' 'Mons. Brongniart'	1869	H.H. Dombrain	10: vol. 8, plate 452
Gloxinia speciosa	'Voie Lactée, 'Ida', 'Lucie', 'Lion de Flandre'	1869-70	Louis Van Houtte	11: vol. 18, plates 1846, page 41; 1878, page 89; 1855, page 105; 1918-19, page 157
Gloxinias A Double Corolle	'John Gray', 'Lady Cremorne'	1873	Louis Van Houtte	11: vol. 19, plate 1955, page 39
Gloxinia	'Ami Thibaut'	1875	Louis Van Houtte	11: vol. 21, plate 2164, page 35
Nouveaux Gloxinias Hybrides	'Madame Duval', 'Phèdre', 'Colore Nova', 'La Rosière', 'Papillon'	1875	Ed. André	19: vol. 22, plate 218, page 138
Gloxinia (Ligeria)	'Mammouth'	1877	Gustave Guilmot	11: vol. 22, plate 2324, page 113
Gloxinia variabilis		1877	EA. Carrière	21: vol. 49, page 70
Nouveaux Gloxinias Hybrides	'Herny-Flèche', 'Piccolino', 'Mont-Blanc', 'Boule de feu', 'Louis Van Houtte', 'Madame Linden', 'La Charmeur', 'Aïda'	1877	L. Duval	19: vol. 24, plate 267, page 11
Nouveaux Gloxinias Hybrides	Lucien Linden', 'Notaire Moens', 'Marquis de Chennevières', 'Mme A. Lavallée, 'Duc de Suthanham', Mme P. Joigneaux', 'Prince de Galles'		Ed. André	19: vol. 25, plate 319, page 105
New Varieties of Gloxinias	'Nimbe céleste', Charme de Lutice', 'Irene', 'William Robinson', 'Ami Thibaut'	1879	Drawn by Mrs. Duffield	16: vol. 15, page 162
Gloxinia Hybrida Grandiflora Var.	Variétés Nouvelles de Gloxinia	1895	Émile Rodigas	19: vol. 42, plates 39 (p 233) & 41 (p 265)
Gloxinias nouveaux	'Madame Eugène Vallerand', 'Renée Fargeton'	1904		21: vol. 76
Sinningia regina		1908	T.A. Sprague & W. Watson	6: vol. 4 (4th series) plate 8182
Sinningia speciosa	'Maximillian's Ligeria'	1918	J.N. Rose	1: plate 95, page 29

References for Table 1

- Addisonia: Colored Illustrations and Popular Descriptions of Plants. Vol. 3, 1918. New York Botanical Garden. 84 pp.
- La Belgique Horticole. Annales D'Horticulture Belge et Étrangère. E. Morren (ed). Vol. 17, 1867. Liége. 368 pp.
- 3. *The Botanical Cabinet*: Consisting of Coloured Delineations of Plants from all Countries. Conrad Loddiges & Sons. London. Pages not numbered.
- 4. *The Botanical Register*: Consisting of Coloured Figures of Exotic Plants, Cultivated in British Gardens. Designs by Sydenham Edwards, London.
- 5. *The Botanist*; Containing Accurately Coloured Figures, of Tender and Hardy Ornamental Plants. B. Maund & J.S. Henslow (eds). London.
- Curtis's Botanical Magazine. J. Sims, S. Curtis, W.J. Hooker, D. Prain (eds) (depending on year). London.
- Deutches Magazin für Garten und Blumenfunde. Wilhelm Neubert (ed). Jahrgang 1848. Stuttgart. 383 pp.
- 8. *Dictionnaire Universel D'Histoire Naturelle*: Atlas, Zoologie, Botanique. Vol. 3, 1849. Paris. Pl. 7, Dicotylédones.
- Edwards's Botanical Register: or, Ornamental Flower-Garden and Shrubbery. J. Lindley (ed). London.
- 10. *The Floral Magazine*: Comprising Figures and Descriptions of Popular Garden Flowers. H.H. Dombrain, A.B. (ed). London.
- 11. Flore de Serres et des Jardins de L'Europe Louis Van Houtte (ed). Ghent, Belgium.
- 12. The Floricultural Cabinet, and Florist's Magazine. Conducted by J. Harrison. London.
- 13. *The Floricultural Magazine, and Miscellany of Gardening*. R. Marnock (ed). Vol. 1, 1836-7. London and Sheffield. 295 pp.
- 14. The Florist, Fruitist, and Garden Miscellany. Vol. 5 (new series), no. LX. 1855. London. 381 pp.
- 15. The Florist's Journal. In: The British Florist; or Lady's Journal of Horticulture, in six volumes. 1846. London. [This is a confused reference. The dates on the Florist's Journals are all earlier than 1846, and it appears that they may have been bound together under a new name after initial publication.]
- The Garden, an Illustrated Weekly Journal of Horticulture in all its Branches. Founded by W. Robinson. London. 1871-1923.
- 17. L'Horticulteur Praticien, Revue de l'Horticulture Française et Étrangère. Première Année, 1857. Paris et Bruxelles. 292 pp.
- 18. Journal D'Horticulture Pratique de la Belgique. Dixiéme Année, 1852-1853. Bruxelles. 390 pp.
- 19. L'Illustration Horticole, Journal Spécial des Serres et des Jardins. C. Lemaire, J. Linden (eds) (depending on year). Ghent.
- 20. Paxton's Magazine of Botany, and Register of Flowering Plants. London.
- 21. Revue Horticole; Journal D'Horticulture Pratique. M. Decaisne (ed). Paris.

Images of *Sinningia speciosa* varieties grown and photographed by Mauro Peixoto in Brazil

Sinningia speciosa var. 'Regina' (came from Mr. Roberto Kautsky's farm in Domingos Martins, Espirito Santo State)





Sinningia speciosa var. 'Regina' "Serra da Vista" (from Serra da Vista mountain, near Cardoso Moreira town, Rio de Janeiro State)

Sinningia speciosa var. 'Discolor' (this form came originally from the AGGS Seed Fund many years ago as Sinningia discolor)



S8 Gesneriads 61(3)



Sinningia speciosa
"Espirito Santo"
(came from Espirito Santo
State, exact locale unknown)

Sinningia speciosa "Buzios" (came from Buzios, Rio de Janeiro State)





Sinningia speciosa "Cardoso Moreira" (came from Carangola, Minas Gerais State)

Sinningia speciosa
"Cardoso Moreira"
(collected near
Cardoso Moreira town,
Rio de Janeiro State)





Sinningia speciosa "Cardoso Moreira" (pink) (pink mutation of the regular "Cardoso Moreira")

Sinningia speciosa
"Antonio Dias"
(collected near
Antonio Dias town,
Minas Gerais State)



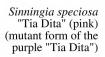


Sinningia speciosa
"São Fidelis"
(came from São Fidelis town,
Rio de Janeiro State)
(leaves almost sessile, like
Sinningia microphylla)

Sinningia speciosa "Noeli" (supposedly from Quiririm, near Joinville town, Santa Catarina State, not verified)



S10 GESNERIADS 61(3)







Sinningia speciosa "Jurape" (supposedly from Jurape Mountain in Joinville town, Santa Catarina State, not verified)

Sinningia speciosa (extra petal) (mutation from an un-named regular purple form)





Sinningia speciosa "Dona Lourdes" (came from cultivated material in Brazil, origin unknown)